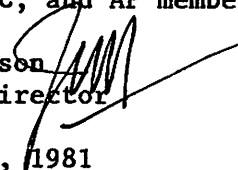


MEMORANDUM

TO: Council, SSC, and AP members

FROM: Jim H. Branson 
Executive Director

DATE: February 20, 1981

SUBJECT: Bering Sea/Aleutian Islands Groundfish FMP

ACTION REQUIRED

1. *Decide on the final form of Amendment #1 to be submitted for Secretarial Review. Decisions should be made on the following:*
 - A. *Derivation of OY*
 - B. *Management Objectives*
 - C. *Fishing Year*
 - D. *Domestic fishery area restrictions*
 - E. *Domestic fishery in-season adjustment of time and area*
 - F. *Foreign fishery area restrictions*
 - G. *Foreign fishery in-season adjustment of time and areas*
 - H. *Closure of INPFC Areas I and II to ~~foreign fishing~~ from October 1 to March 31.* *all tal*

2. *The PDT has noted that closure of INPFC Areas I and II will not serve to protect halibut and is therefore not in conformance with the FMP objective:*

"Minimize the impact of groundfish fisheries on prohibited species and continue the rebuilding of the Pacific halibut resource."

The PDT has designated a preferred option to reduce the catch of prohibited species by encouraging changes in gear and fishing techniques. The team has adopted three guidelines to determine procedures for resolving the problems.

The PDT is prepared to develop Amendment #3, Reducing the Catch of Prohibited Species, based on their preferred option and three guidelines, if the Council so directs.

The Council may approve the three guidelines and direct the PDT to proceed with development of Amendment #3 based on the PDT's preferred option.

3. *The Council should receive a report from the SSC on the collection of papers by the Working Group on Prohibited Species, "Reducing the Incidental Catch of Prohibited Species by Foreign Groundfish Fisheries in the Bering Sea."*

The report will be necessary in evaluating Items 1 and 2 above.

4. *The Council has received a request from Poland to allow fishing with pelagic trawls in part of the Winter Halibut Savings Area. The Council may decide to direct the PDT to consider amending the FMP accordingly.*

BACKGROUND

1. The Council mailed Amendment #1 to the public for review on October 20, 1980. Public hearings were held in Dutch Harbor, Nome, Bethel, Seattle, Kodiak and Anchorage. A summary of the amendment is included as item E-6(a).

The PDT met in Seattle on January 13 and 14 to review the October 7 draft of Amendment #1.

The full PDT report is included as item E-6(b). The PDT made the following comments, summarized here:

A. Derivation of OY

The PDT preferred Option 1 where OY=1.4 to 2.0 million metric tons. This option offers the greatest opportunity for the fishery to be managed with the latest sources of information.

In conjunction with the derivation of OY, the PDT preferred the management techniques expressed in Option 1 as follows:

- 1) Determination of Initial TAC for the Groundfish Complex
- 2) Determination of Final TAC for the Groundfish Complex.
- 3) Determination of Species TAC
- 4) Release of Reserves

B. Management Objectives

The management objectives in Amendment #1 are reworded draft FMP objectives. The new wording does not change the original FMP objectives, but expresses more succinctly the objectives. The order of the objectives does not indicate priority. The proposed objectives are:

- 1) Rational and optimal use, in biological and socioeconomic sense, of the region's fishery resources as a whole;
- 2) Minimize the impact of groundfish fisheries on prohibited species and continue the rebuilding of the Pacific halibut resource;

- 3) Provide for the opportunity and orderly development of domestic groundfish fisheries, consistent with (A) and (B) above; and
- 4) Provide for foreign participation in the groundfish fishery, consistent with all three objectives above, to take the portion of the optimum yield not utilized by domestic fishermen.

C. Fishing Year

The PDT believes that the fishing year should follow the calendar year to keep data systems and the fishery in proper time perspectives.

D. Domestic Fishery Area Restrictions

The amendment would permit the domestic trawl fishery to operate year-round in Area A, the Bristol Bay Pot Sanctuary, and from December 1 to May 31 in Area B, the Winter Halibut Savings Area. Refer to item E-6(a) for a map showing these areas.

The PDT supports allowing domestic trawlers to operate more freely in Areas A and B.

E. Domestic Fishery, in-season adjustment of time and area

The PDT believes that the NMFS Regional Director should be able to issue field orders adjusting time and/or area closures for conservation reasons, based upon the following considerations:

- 1) The effect of overall fishing effort within a fishing area or part thereof;
- 2) Catch-per-unit of effort and rate of harvest;
- 3) Relative abundance of stocks within the area in comparison with pre-season expectations;
- 4) The proportion of prohibited species being caught;
- 5) General information on the condition of stocks within the area;
- 6) Information pertaining to the guideline harvest level for species within a fishing area or part thereof; or
- 7) Any other factors necessary for the conservation and management of the groundfish resource.

F. Foreign Fishery Area Restrictions

The PDT supports the foreign fishery area restrictions in the amendment package, Areas A through F. Refer to item E-6(a) for a map of these areas.

Area "F" is a newly identified area which changes area restrictions for foreign fisheries slightly. In Area "F" foreign trawlers and longliners are permitted to fish up to 3 nautical miles from the U.S. coast.

The PDT recommends changing the amendment to allow foreign longliners to up to 3 nautical miles on the North side of the Aleutians between 170°W and 172°W (between Areas "B" and "F").

G. Foreign Fishery, in-season adjustment of time and areas

The PDT believes that the NMFS Regional Director should be able to issue field orders adjusting time and/or area closures for conservation reasons (see "E" above) and to prevent serious gear conflicts, based upon the following considerations:

- 1) More than two gear loss reports have been submitted in person or by radio to NMFS or Coast Guard detailing:
 - (a) amount of gear lost, (b) date set and date gear was found missing, (c) observations of foreign vessels operating in area, identified, if possible by call letters, and (d) other pertinent information of gear conflict situation. Reports of gear loss must be confirmed by affidavit at the earliest opportunity.
- 2) Foreign vessels are verified by NMFS or Coast Guard to have been operating in the area of conflict.
- 3) Coast Guard or NMFS patrol unit has visited area and confirmed the general gear conflict situation as indicated by reports.
- 4) Foreign vessels in area have been contacted by patrol unit or by radio message advising of the gear conflict, defining the problem area and requesting that the foreign vessels depart the area voluntarily.
- 5) Foreign vessels decline to depart area and domestic fixed gear fishing is continuing and need for specific closure is clear.

(A similar provision in Amendment #8 to the Gulf of Alaska FMP has not yet received Secretarial approval, whereas other parts of GOA #8 were approved as final regulations on November 5, 1980.)

H. Closure of INPFC Areas I and II to foreign fishing from October 1 to May 31.

As noted under "ACTION REQUIRED," the PDT believes this proposal will not continue the rebuilding of the Pacific halibut resource and will not fulfill this management objective of the FMP. Refer to item E-6(b), p. 8 of the PDT report.

2. Bering Sea/Aleutians PDT Views on Procedures for Controlling Incidental Catches of Prohibited Species

Refer to item E-6(b) pages 9-13.

The PDT has adopted 3 guidelines to determine procedures for reducing the catches of prohibited species, as follows:

- A. that procedures chosen should provide incentives for fishermen to modify their gear, fishing technique, and whatever is appropriate to reduce incidental catch of prohibited species so that long-term solutions would result from the actions;

- B. that procedures chosen should be potentially applicable both to foreign and domestic fishermen; and
- C. that the procedures chosen should not be applied to domestic fishermen at this time, and that its applicability to them should be evaluated when the domestic prohibited species catch becomes a problem.

The first preference of the PDT is to set an incidental allowable catch (IAC) coupled with an incidental catch fee for each prohibited species. The PDT objective is to reduce the incidental catch of each prohibited species by 75% in 5 years.

The PDT rationale for this preference is explained in item E-6(b), pages 11-13.

The PDT is prepared to develop a separate amendment, Reducing the Incidental Catch of Prohibited Species, based on the above if the Council so directs. The PDT believes that separation of the prohibited species issue from Amendment #1 would allow the new management regime proposed by Amendment #1 to be implemented some time during 1981.

Summaries of written comments received on Amendment #1 are included as item E-6(c). A summary of the public hearing testimony received in Bethel on November 20, 1980 is included as item E-6(d).

- 3. The Working Group on Prohibited Species completed the report, "Reducing the Incidental Catch of Prohibited Species by Foreign Groundfish Fisheries in the Bering Sea." The Report was mailed to the SSC, AP, and Council shortly after January 23.

The PDT preferred option for reducing the catch of prohibited species is based on results contained in this report.

- 4. The Council has received a proposed amendment to the FMP from Poland, to permit fishing with pelagic trawls in part of the Winter Halibut Savings Area from December 1 to May 31. The entire proposal as received from the NMFS is included as item E-6(e). The Council may direct the PDT to consider amending the FMP accordingly.
- 5. The NMFS requested that an addition to Amendment #2 (Increase the Yellowfin sole fishery JVP) be written so that the FMP Pacific cod OY would conform to the PMP Pacific cod OY of 78,700 mt. The Council recommended a Pacific cod OY of 88,000 mt in April 1980. Based on that action, and on INPFC reports, the Council staff submitted an addition to Amendment #2 to NMFS on February 10, 1981.

Refer to item E-6(f) for an explanation of the addition to Amendment #2.

- 6. The Federal District Court has refused to consider the suit (Hanson, et al. v. Klutznick, et al.) to close foreign trawling in INPFC Areas I and II of the Bering Sea brought by 15 western Alaska villages. NMFS refused their petition for the same purpose on December 19, 1980. A copy of the Court's opinion was mailed to the Council, SSC, and AP on February 12, 1980.

SUMMARY OF PROPOSED AMENDMENT PACKAGE
FOR BERING SEA/ALEUTIAN ISLANDS GROUND FISH FMP

1. Optimum Yield and Reserve

a) Option One: OY as a range

Option one is characterized by an OY for all species combined, based on an MSY range for the entire BS/A groundfish complex. ABC is also based on the entire complex, expressed as a range which is lower than MSY to reflect the status of several depleted stocks and insufficient or possibly inaccurate data. Lacking socioeconomic reasons and data to the contrary, OY and ABC are equal. OY is apportioned to an allowable catch for each species (TAC) on the basis of a proportion multiplier which is estimated by historic data to reflect the percentage of the total BS/A groundfish complex that each species comprises. The reserve amount is increased from previous estimates to accommodate in-season domestic fisheries needs.

b) Option Two: OY as a single figure

Option two is also an OY for all species combined, based on the same MSY range as option one, but expressed as a single figure. ABC and OY are equal and lower than MSY for similar reasons as in option one. TAC is apportioned in a smaller manner, but the reserve is larger as an assurance that OY will not be exceeded during the year.

c) Option Three: status quo

Option three is a species-by-species management regime similar to the current BS/A groundfish management plan. MSY, ABC, OY, and TAC are calculated for each species. ABC and OY are equal, and a five percent reserve for each species is set aside to be allocated during the year.

2. Increase in Regional Director's In-Season Authority

The amendment proposes to increase the in-season flexibility of the Regional Director for the determination of TAC, release of reserves and time/area restrictions. This bypasses the costly delays caused by the formal amendment process.

3. DAH Estimates for 1981

Estimates for DAH have been raised to accommodate increased joint venture processing expectations. The 1981 DAP estimate has not increased over the 1980 estimate in consideration of past performance of the domestic industry and the ability of the Regional Director to make appropriate in-season release of reserves if the need arises.

4. Management of Incidental Species (Attachment I of amendment package)

Six options have been proposed by the Bering Sea/Aleutian Islands Plan Drafting Team for the management of the catch of incidentally caught species. These options are being proposed for discussion purposes. Further analysis is being done on the application of several of these options to the groundfish fishery in the Bering Sea which will be available in early December.

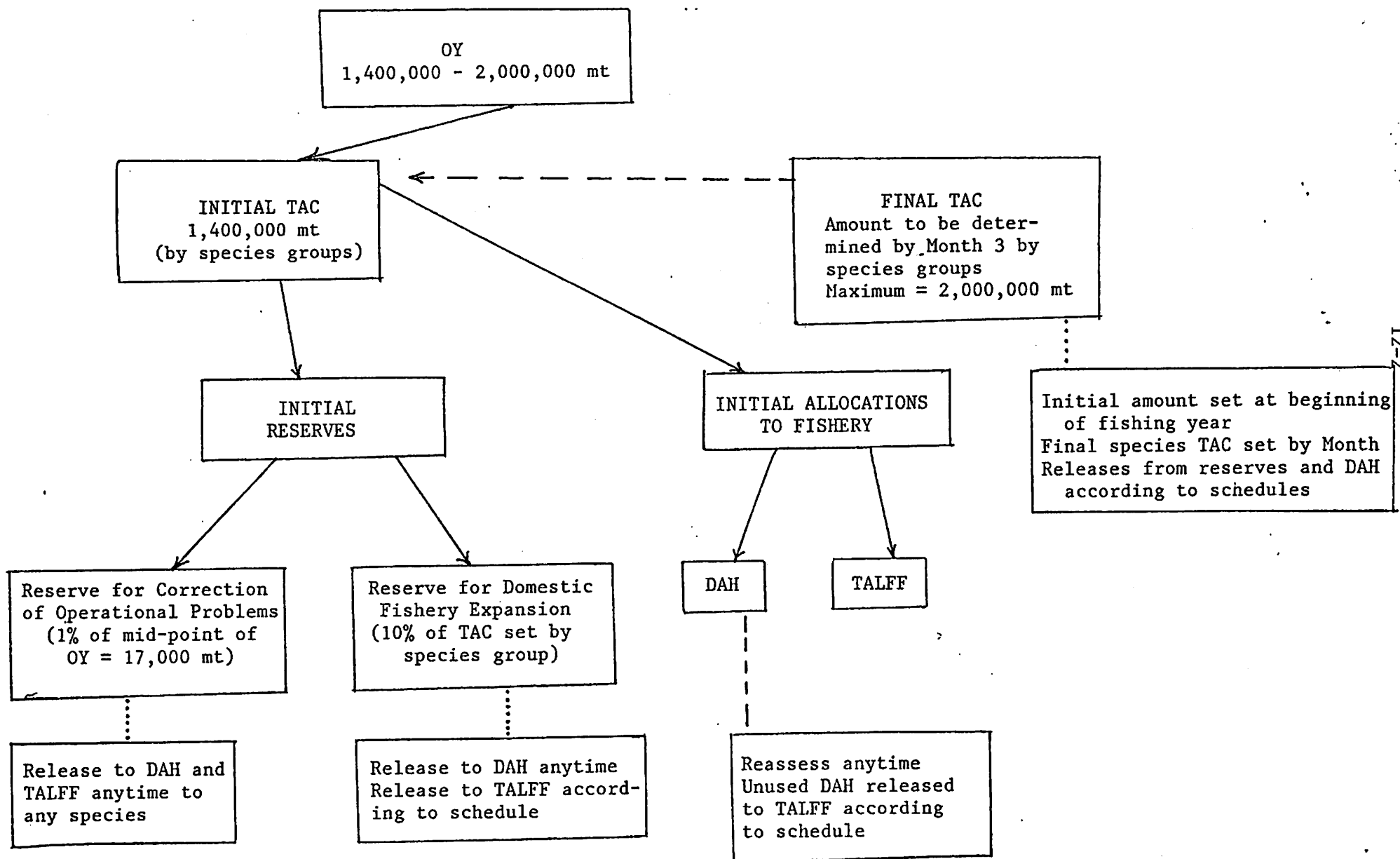
5. Proposed Amendment, Nunam Kitlutsisti: Closure of Areas I and II to groundfish fishing to protect herring and salmon during the winter months. (Attachment II of amendment package)

This amendment package has been proposed for the 1980-1981 season. The general impacts of the closure are being examined by the PDT and will be available with the Management of Incidental Species Report in December.

TABLE : COMPARISON OF OPTIONS 1, 2 AND 3 WITH CURRENT FMP

| | CURRENT FMP | OPTION ONE | OPTION TWO | OPTION THREE |
|-------------------------|-----------------|---------------------------|---------------------------|-----------------------|
| MSY | 1,7 - 2,300,000 | 1,7 - 2,400,000 | 1,7 - 2,400,000 | 1,713,000 - 2,338,000 |
| ABC | 1,559,226 | 1,4 - 2,000,000 | 1,600,000 | 1,865,000 |
| OY | 1,559,226 | 1,4 - 2,000,000 | 1,600,000 | 1,865,000 |
| RESERVE | 73,324 | 157,000 17,000 140,000 | 400,000 16,000 384,000 | 93,250 |
| TAC: INITIAL FINAL | | 1,400,000 (1,243,000) | 1,600,000 (1,200,000) | |
| DAH | 56,100 | 83,150 | 83,150 | 83,150 |
| TALFF: INITIAL TOTAL | 1,429,802 | 1,159,850 | 1,116,850 | 1,688,600 |

Figure 25-1. Option 1 of 3



12-2

Figure 25-2. Option 2 of 3

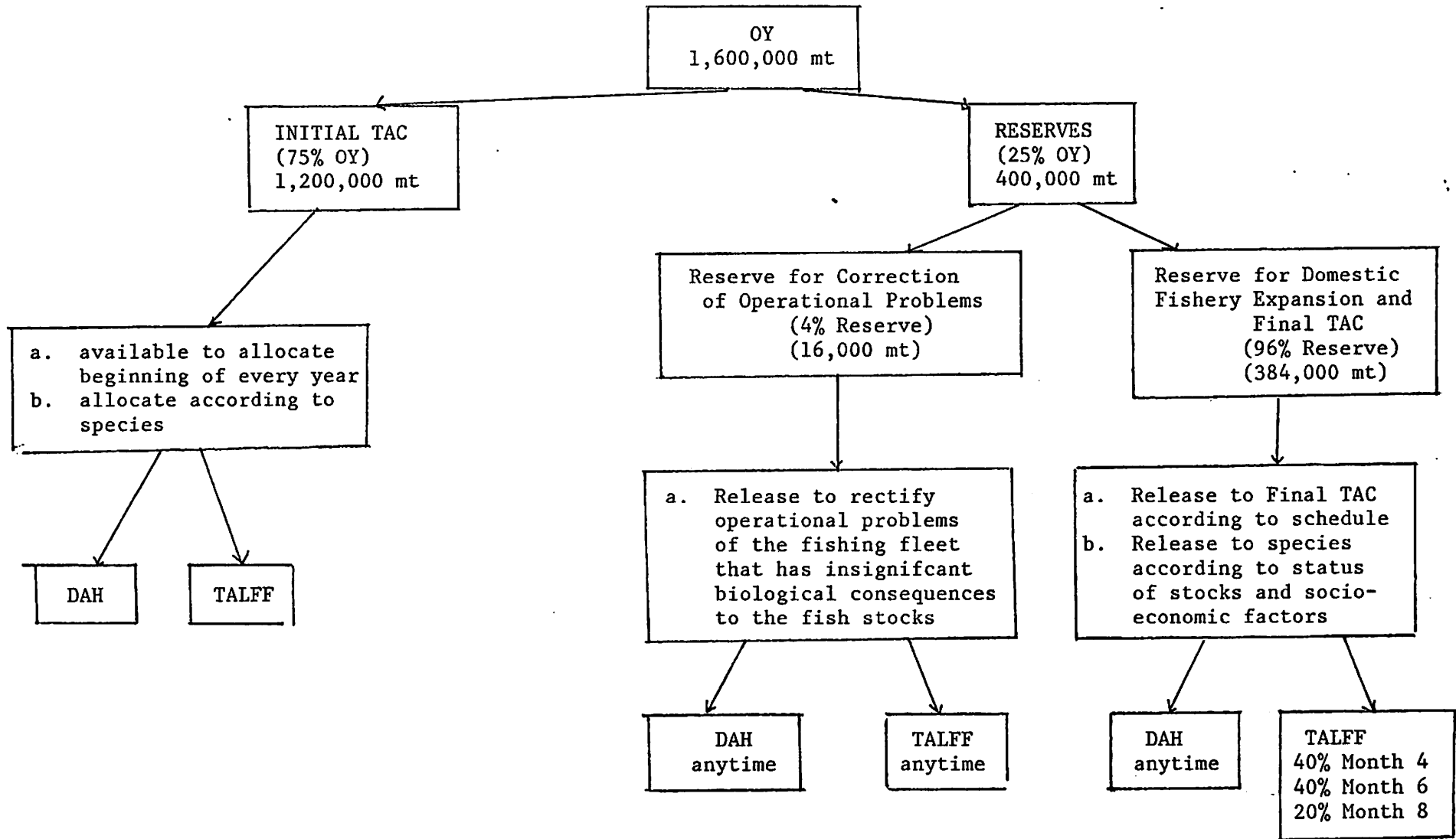


Table IX. Approximate OY's and TAC's (in 1,000's mt) of Individual Species in the Bering Sea/Aleutian Islands Region.

| | | CURRENT FMP | OPTION ONE | OPTION TWO | OPTION THREE |
|---------------------|----|-------------|------------|------------|--------------|
| Pollock | BS | 1000 | 952 | 1088 | 1200 |
| | AL | 100 | 32.2 | 36.8 | 100 |
| Yellowfin Sole | | 117 | 84 | 96 | 169 |
| Turbots | | 90 | 56 | 64 | 71 |
| Other Flatfishes | | 61 | 70 | 80 | 60 |
| Pacific cod | | 58.7 | 70 | 80 | 120 |
| Pacific Ocean Perch | BS | 3.25 | 3.5 | 4.0 | 1.0 |
| | AL | 7.5 | 3.5 | 4.0 | 2.6 |
| Other Rockfish | | 7.727 | 14 | 16.0 | 14.3 |
| Sablefish | BS | 3.5 | 2.1 | 2.4 | 2.6 |
| | AL | 1.5 | .7 | .8 | 1.1 |
| Atka Mackerel | | 24.8 | 42 | 48.0 | 24.8 |
| Squid | | 10 | 28 | 32 | 10 |
| Other Species | | 74.249 | 42 | 48 | 89.4 |
| TOTAL | | 1559.23 | 1400.00 | 1600.00 | 1865.80 |

ANNEX I

DERIVATION OF ACCEPTABLE BIOLOGICAL CATCH

Annex I consists of stock assessment studies based on single-species management concepts. Due to the 50-page length, time and costs of duplicating this material, only the table reflecting the MSY, EY and ABC values is included here. The entire Annex I will be published with the final amendment and may be obtained from the Council office for study.

Table I - MSY, EY and ABC values for groundfish in the Bering Sea/Aleutian area during 1981 (1000s mt).

| SPECIES | REGION 1/ | MSY | EY | ABC | (1979 OY - 1981 | ABC CHANGE |
|------------------------|-----------|----------------|---------|-----------|-----------------|------------|
| | | | | | (1979 OY) | |
| POLLOCK | BS | 1,100-1,600 | 1,200 | 1,200 | (1,000) | (+200) |
| | AL | ? | ? | 100 | (100) | (0) |
| YELLOWFIN SOLE | BS-AL | 169-260 | 169 | 169 | (117) | (+52.0) |
| TURBOTS | BS-AL | 90 | 71 | 71 | (90) | (-19) |
| OTHER FLATFISHES | BS-AL | 42.9-76.8 | 60 | 60 | (61) | (-1) |
| PACIFIC COD | BS-AL | 58.7 | 160 | 120 | (58.7) | (+61.3) |
| PACIFIC OCEAN PERCH | BS | 32 | 5 | 1.0 | (3.25) | (-2.25) |
| | AL | 75 | 13 | 2.6 | (7.50) | (-4.9) |
| OTHER ROCKFISH | BS | ? | 7.0 | 7.0 | } (7.7) | (6.6) |
| | AL | ? | 7.3 | 7.3 | | |
| SABLEFISH | BS | 11.35 | 2.6 | 2.6 | (3.5) | (-0.9) |
| | AL | 1.85 | 1.1 | 1.1 | (1.5) | (-0.4) |
| ATKA MACKEREL | BS-AL | 33 | ? | 24.8 | (24.8) | (0) |
| SQUID | BS-AL | ≥10 | ≥10 | 10 | (10) | (0) |
| PACIFIC HALIBUT | BS-AL | 5 | 0.3 | <u>2/</u> | - | - |
| OTHER INCLUDED SPECIES | BS-AL | 89.4 | 89.4 | 89.4 | (74.2) | (+15.2) |
| <u>TOTAL 3/</u> | | ,713.2-2,338.1 | 1,755.4 | 1,865.8 | (1,559.15) | (+306.65) |

1/ BS - Eastern Bering Sea (Statistical Areas I & II).
 AL - Aleutian Region (Statistical Area IV)

2/ Subject to separate FMP.

3/ Excluding Pacific halibut

AREA-TIME CLOSURES

(Refer to Map)

| DOMESTIC FISHERY | FOREIGN FISHERY |
|---|--|
| <p>In-season adjustment of Area-time closure by Regional Director</p> <p>.....</p> | <p>In-season adjustment of area-time closure by Regional Director</p> <p>.....</p> |
| <p><u>Area A:</u> Year-round trawling permitted (Observer monitoring encouraged)</p> | <p><u>Area A:</u> No fishing year round</p> |
| <p><u>Area B:</u> Dec 1-May 31: Trawling permitted with onserver encouraged Longline permitted until catch reaches 2,000 mt Rest of Year: Fishing permitted</p> | <p><u>Area B:</u> Dec 1-May 31: No fishing Rest of year: Fishing permitted</p> |
| <p><u>Area C:</u> No closure</p> | <p><u>Area C:</u> No trawling year-round Longline permitted to 3 miles</p> |
| <p><u>Area D:</u> No closure</p> | <p><u>Area D:</u> Longline permitted to 3 miles Jan 1-June 30: no trawling Rest of year : Trawling permitted to 3 miles</p> |
| <p><u>Area E:</u> No closure</p> | <p><u>Area E:</u> Longline permitted to 3 miles Jan 1-April 30: No trawling Rest of year : Trawling permitted to 3 miles</p> |
| <p><u>Area F:</u> No closure</p> | <p><u>Area F:</u> Year-round fishing permitted to 3 miles</p> |

Rationale: Area A: Gear conflict of trawls vs crab pots
Incidental catch of juvenile halibut
Area B: Incidental catch of juvenile halibut
Area C: Gear conflict of trawls vs longlines
Area D: Gear conflict of trawls vs crab pots
Incidental catch of king crab by trawls
Area E: Same rationale as in Area D
Area F: Open more areas for foreign fishing
No biological and gear conflicts

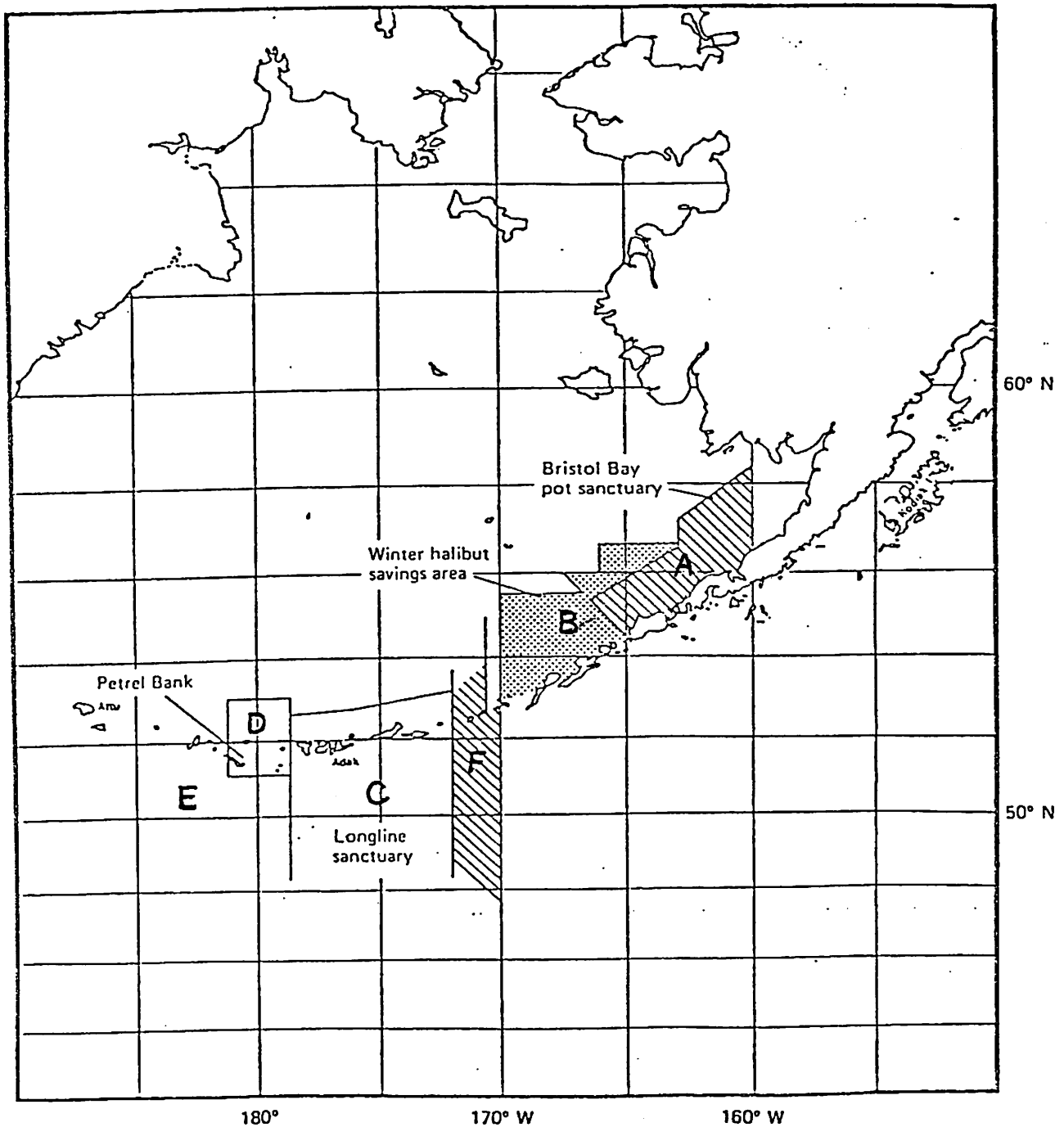


Figure 27. General location of areas described in management measures for the Bering Sea/Aleutians groundfish fisheries (see Appendix II for geographical coordinates).

Table II.1. Amounts of fish (mt) U.S. processors reportedly intend to process in the Bering Sea (DAP) and the initial DAP established for 1981.

| <u>Species</u> | <u>1981 U.S. Reported Intention to Process (mt)</u> | <u>1981 Initial DAP (mt)</u> |
|---------------------|---|----------------------------------|
| Pollock | 9,982 | 10,500 |
| Pacific cod | 17,241 | 7,200 |
| Atka mackerel | 0 | 0 |
| Yellowfin sole | 227 | 1,200 |
| Turbot | 0 | 1,000 |
| Other flatfishes | 907 | 1,200 |
| Pacific ocean perch | 454 | 1,100 |
| Rockfish | 117 | 1,100 |
| Sablefish | 522 | 1,000 |
| Squid | 0 | 0 |
| Other species | <u>0</u> | <u>1,800</u> |
| Total | 29,560 | 26,100 |

Table II.2. Amounts of fish (mt) designated for delivery by U.S. fishermen to foreign processors at sea (JVP) in 1981.

| <u>Species</u> | <u>1981 JVP</u> |
|---------------------|----------------------|
| Pollock | 9,050 |
| Pacific cod | 17,065 |
| Atka mackerel | 100 |
| Yellowfin sole | 25,000 ^{1/} |
| Turbot | 75 |
| Other flatfishes | 3,000 ^{2/} |
| Pacific ocean perch | 1,660 |
| Rockfish | 450 |
| Sablefish | 400 |
| Squid | 50 |
| Other species | <u>200</u> |
| Total | 57,050 |

^{1/} A 24,150 mt increase over 1980.

^{2/} A 2,900 mt increase over 1980.

Reserves (Table II.3.) established by the FMP (5 percent of the OY for each species or 73,324 metric tons) are considered adequate to supplement either the DAP or JVP components of DAH during the fishing year should amounts in either component prove inadequate.

Table II.3. Initial 1981 DAH.

| <u>Species</u> | <u>DAH</u> |
|---------------------|--------------|
| Pollock | 19,550 |
| Pacific cod | 24,265 |
| Atka mackerel | 100 |
| Yellowfin sole | 26,200 |
| Turbot | 1,075 |
| Other flatfishes | 4,200 |
| Pacific ocean perch | 2,760 |
| Rockfish | 1,550 |
| Sablefish | 1,400 |
| Squid | 50 |
| Other species | <u>2,000</u> |
| Total | 83,150 |

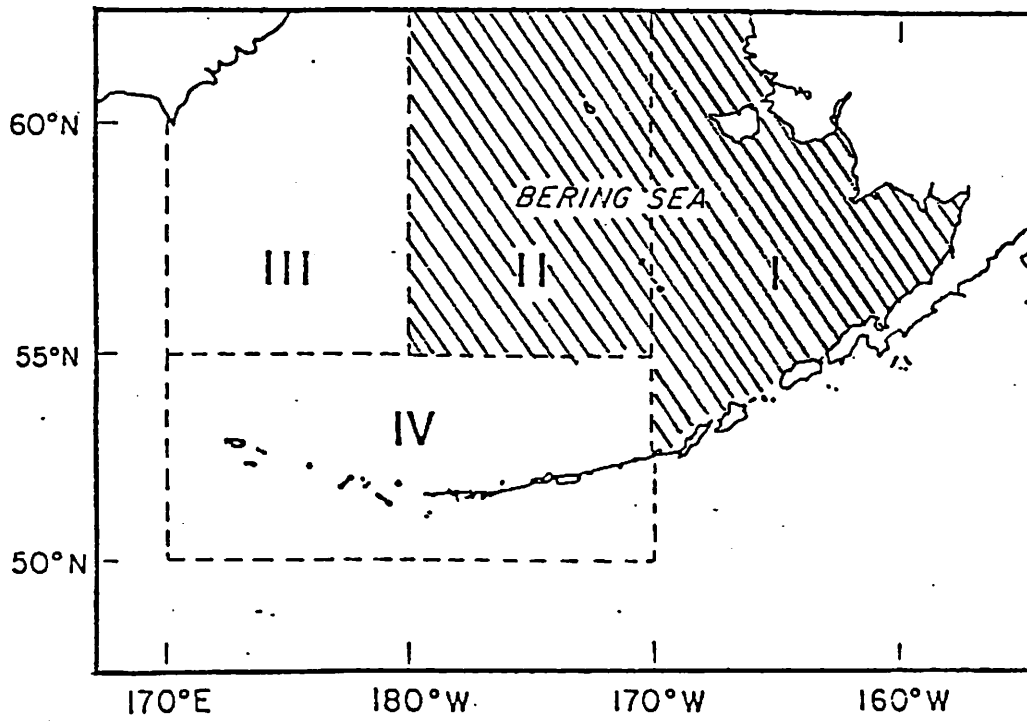


FIGURE IV: Area G, "Winter Salmon/Herring Savings Area"

BERING SEA/ALEUTIANS GROUND FISH PLAN DEVELOPMENT TEAM REPORT OF THE
JANUARY 13-14, 1981 MEETING

by

Bering Sea/Aleutians Groundfish Plan Development Team
North Pacific Fishery Management Council

February 11, 1981

BERING SEA/ALEUTIANS GROUND FISH PLAN DEVELOPMENT TEAM

REPORT OF THE JANUARY 13-14, 1981 MEETING

February 11, 1981

The Plan Development Team met during January 13-14, 1981, at the Northwest and Alaska Fisheries Center, Seattle. Members present were Loh-Lee Low (Team Leader), Steve Hoag, Phil Rigby, Bob Stokes, Richard Bakkala, and Jim Blackburn. Council staff member, Jeff Povolny, also participated. The meetings of the first day and the morning of the second day were closed to public participation. A public session was held on the afternoon of the second day.

The main purposes of the meeting were (a) to review the October 7, 1980 version of the draft amendment package of the Bering Sea/Aleutians groundfish FMP and to comment or reaffirm the Team's views on these amendments, and (b) to study the SSC working group report on prohibited species^{1/} and determine Team views on procedures for controlling incidental catches of prohibited species in the Bering Sea.

(A) TEAM REVIEW OF DRAFT AMENDMENT PACKAGE

The Team reviewed the draft amendment package with knowledge of the public comments that have been received to date. It was noted that six public hearings on the topic have been held to date. These were held between October 21-December 9, 1980 in Dutch Harbor, Nome, Bethel, Seattle, Kodiak, and Anchorage.

The draft amendment package is rather lengthy and for convenience, the major points contained in the package are identified as follows for comment. These points are:

^{1/} Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea by the Working Group on Prohibited Species, Scientific and Statistical Committee, North Pacific Fishery Management Council. January 1981.

(1) Derivation of OY.

2. Determination of initial TAC for the groundfish complex.

.... apportionment of initial TAC to reserves and allocations.

3. Determination of final TAC for the groundfish complex.

.... apportionment of final TAC to reserves and allocations.

4. Determination of species TAC.

5. Release of reserves.

(6) Management objectives.

(7) Fishing year.

(8) Fishing area restrictions--domestic fishery.

(9) In-season adjustment of time and area--domestic fishery.

(10) Fishing area restrictions--foreign fishery.

(11) In-season adjustment of time and area--foreign fishery.

(12) Nunam Kitlutsisti proposal to close Areas I and II for 6 months.

1. Derivation of OY

Three options are given. The Team prefers Option 1 where OY = 1.4 to 2.0 million metric tons. This option offers the greatest opportunity for the fishery to be managed with the latest source of information on stock conditions on each groundfish species and the groundfish complex. The ability to manage the fishery on current information is a great advantage over the present untimely manner of amending FMPs each time stock conditions change. It is especially important to note that stock conditions in the Bering Sea/Aleutians can change rather rapidly and have been known to have changed significantly over recent years.

Both the upper and lower bounds of the OY range are within limits of EYs of the past 4 years. The EY for 1980 (2,002,700 mt) exceeded the upper limit of OY slightly.

Option 2 sets OY = 1.6 million mt. This option is less desirable because the fishery will not be managed according to year-to-year changes in stock abundance but instead, averaged over a few year's span.

Option 3 is status quo where OY is defined for each species and would require a plan amendment each time changes are made to reflect stock conditions. Since the draft FMP was submitted, new status of stock analyses have been completed which would change the EYs and ABCs specified in Annex I. Accordingly, Annex I may have to be amended to reflect the latest analyses which indicated that the 1980 EY for the groundfish complex was 2,002,700 mt-- an increase from 1,577,400 mt in 1978 and 1,818,300 mt in 1979. The major changes were increases in EY for pollock, yellowfin sole, and cod.

2. Determination of Initial TAC for the Groundfish Complex

The Team reaffirms its view that under Option 1, the minimum range of OY (1.4 million mt) is an appropriate starting point for the fishery to start each year while the final TAC for the year is determined. The current status of the stocks are such that EY is not expected to drop below 1.4 million mt in the foreseeable future.

The Team reaffirms its views on how the initial TAC is to be apportioned into initial reserves (which is made up of 2 parts--for correction of operational problems and for domestic fishery expansion) and initial allocations to the fishery (to DAH and TALFF).

The Team also reaffirms its views on how the initial groundfish complex TAC is to be apportioned into species TACs as described in the package.

3. Determination of Final TAC for the Groundfish Complex

The Team believes that sufficient biological information on the stocks will be available to assist the Council to determine the final TAC during the first three months of the year. It believes that ABCs for individual species can be determined according to the procedures of Annex I in time to set individual species TACs. It also adheres to the procedures of apportioning final TACs into reserves and allocations.

4. Determination of Species TAC

The Team cannot determine a standardized set of mathematical relationships or mechanical procedures to determine TACs by species each year according to latest information. Some of the reasons lie in the fact that changes in stock conditions are rather variable and cannot be predicted in standardized ways, and that the quality and quantity of data available will also vary considerably from year-to-year.

The Team believes, however, that it is possible to determine ABCs by species groups according to data and analytical procedures used in Annex I. These procedures incorporate commercial fishery data, research survey data, and information from scientific meetings with foreign and U.S. scientists. The ABCs may then be adopted by the Council to set species TACs or be modified by the Council for socio-economic factors.

The Team recommends this procedure of setting final species TACs, consistent with final TAC set for the groundfish complex. It recognizes that additional research and analyses need to be conducted to provide the Council a better mechanical procedure of arriving at species TACs in the future.

5. Release of Reserves

The Team reaffirms its views that reserves should be released as scheduled in the amendment package to provide better opportunities for the fishery to achieve OY. In particular:

(a) Initial and final reserves for correction of operational problems can be released anytime to DAH and TALFF. This reserve may be released to DAH or TALFF when the opportunity for operational problems is no longer likely to arise and the reserve is no longer needed.

(b) Initial and final reserves for domestic fishery expansion may be released to DAH anytime. The final reserve for domestic fishery expansion (which would have been determined by month 3) will be released to TALFF by the end of month 6.

(c) Unused DAH will be released to TALFF by the end of month 6.

There is a question on whether to release the final reserve for domestic fishery expansion (b) and the unused DAH (c) to TALFF according to the following schedule: 40% at the beginning of month 4, 40% at the beginning of month 6, and 20% at the beginning of month 8. This schedule is suggested in OY Option 2. The Team does not have any special reason to believe that this release schedule is superior to that contained in OY Option 1 in meeting the objective of providing better opportunities for the fishery to achieve OY.

6. Management Objectives

The Team notes that the 4 major management objectives of the amendment package are worded and sequenced differently from the draft FMP. The Team wishes to clarify that the new wording does not change the original FMP objectives but was done to follow the system used by the Gulf of Alaska

Groundfish FMP which expresses the objectives more succinctly. The Team also pointed out that the order in which individual objectives appear does not necessarily indicate the priority in which the objective should be met.

7. Fishing Year

The Team believes that the fishing year should follow the calendar year to keep data systems and the fishery in proper time perspectives.

8. Fishing Area Restrictions--Domestic Fishery

Management measures for the domestic fishery specified in the amendment package conform with approved amendments to the PMP but are slightly different from the draft FMP. The differences are noted below.

The amendment package permits the domestic trawl fishery to operate more freely in Areas A and B. In Area A (the Bristol Bay Pot Sanctuary Area), domestic trawling will be permitted year-round on an experimental basis and be monitored closely by observers. In the draft FMP, this area is open to trawling only during the open seasons of the U.S. crab fisheries.

In Area B (the Winter Halibut-Savings Area), domestic trawling will be permitted on an experimental basis and monitored closely by observers during December 1-May 31. Only 2,000 mt of groundfish is permitted to be taken in this area and time period in the draft FMP.

The Team reaffirms its views on allowing domestic trawlers to operate more freely in Areas A and B as stated and adheres to other fishing area restrictions specified in the amendment package.

9. In-Season Adjustment of Time and Area--Domestic Fishery

The Team believes that it will be desirable to allow the Regional Director or his designee to issue field orders adjusting time and/or area closures for conservation reasons as specified.

10. Fishing Area Restrictions--Foreign Fisheries

The amendment package makes it easier to identify fishing areas and are restricted in the draft FMP by calling them Areas A to F. Area F is a newly identified area which changes area restrictions for foreign fisheries slightly. In Area F, foreign trawlers and longliners are permitted to fish up to 3 nautical miles off the U.S. coast.

The present amendment package will allow foreign trawlers and longliners to operate up to 12 nautical miles in the northern side of the Aleutians between 172°W and 170°W (between Areas F and B). The rationale for this restriction is to prevent gear conflicts between domestic crab fishermen and foreign fishermen utilizing the area. Since foreign longliners in this area are not normally the source of gear conflict problems to domestic crab fishermen, the area should be opened to foreign longlining up to 3 nautical miles. This provision was an oversight of the Team in drafting the amendment package and the Team wishes to correct this oversight.

The Team wishes to point out that all, except for one, area restrictions specified for the foreign fisheries are designed to avoid some form of gear conflict. Only Area B is designed to protect halibut as a winter-halibut savings area.

11. In-Season Adjustment of Time and Area--Foreign Fishery

The Team believes it highly desirable to allow the Regional Director or his designee to issue field orders adjusting time or area closures for foreign vessels on conservation reasons as well as to solve serious gear conflicts with domestic fixed gear fishing operations as specified.

12. Nunam Kitlutsisti Proposal to Close Areas I and II for 6 Months

Based on a Bering Sea Time-Area Closure Model study^{2/}, it appears that closing the area during October-December and January-March may--

- i. lead to some reduction of groundfish catch (0-3%),
- ii. lead to 11-16% savings in king crab catches,
- iii. lead to 4-6% savings in Tanner crab catches,
- iv. lead to 76-77% savings in salmon catches,
- v. lead to 93% savings in herring, but
- vi. result in 13-19% increased catches on halibut.

Since Management Objective B of the Plan is to "Minimize the impact of groundfish fisheries on prohibited species and continue the rebuilding of the Pacific halibut resource," it appears that the Proposal will not serve to protect halibut and, therefore, is not in conformance to the management objectives of the Plan.

Based also on the Model study and a Linear Programming study^{3/} of the incidental catch problem, it appears that it is difficult to define a time-area closure that will obviously and consistently provide a high degree of protection to all prohibited species. However, there is no question that some areas will protect selected species very well.

^{2/} Low, L.L. 1981. Selected simulation runs of Bering Sea time-area closure model with particular reference to the Nunam Kitlutsisti petition for area closure. NOAA, NMFS, NWAFC, Seattle. 9 p.

^{3/} Balsiger, J. 1981. Linear programming as a tool in the analyses of the incidental catch of prohibited species. NOAA, NMFS, NWAFC, Seattle. 26 p.

(B) TEAM VIEWS ON PROCEDURES FOR CONTROLLING INCIDENTAL CATCHES OF PROHIBITED SPECIES

Guidelines

The Team believes that gear and technique changes can be made to reduce prohibited species catches. The Team adopted 3 guidelines to determine procedures for resolving the problem:

1. that procedures chosen should provide incentives for fishermen to modify their gear, fishing technique, and whatever is appropriate to reduce incidental catch of prohibited species so that long-term solutions would result from the actions;
2. that procedures chosen should be potentially applicable both to foreign and domestic fishermen; and
3. that the procedures chosen should not be applied to domestic fishermen at this time, and that its applicability to them should be evaluated when the domestic prohibited species catch becomes a significant problem.

Six Options

The Team originally evaluated 6 options for controlling the problem:

- (1) set TAC for each prohibited species, (2) set fishery specific incidence rates for prohibited species, (3) impose economic disincentives for catching the species, (4) enact time-area closures, (5) impose gear restrictions, and (6) reduce OY of groundfish.

The two options that reflect the general guidelines adopted by the Team and therefore considered to be most appropriate are: (1) set incidental allowable catch (IAC) for prohibited species; and (2) impose economic disincentives (charge fees) for catching prohibited species. The Team discussed the other options and considered them to be impractical for the following reasons:

---gear modifications

Although gear restrictions such as off-bottom trawls would substantially reduce the incidental catch of prohibited species, some species of groundfish (e.g. flounders) may not be fully harvested. Also, enforcement is difficult because minor adjustments in the gear might alter the catch rates of prohibited species.

---time-area closures

The effect of time-area closures is difficult to evaluate because the distribution of prohibited species may vary with respect to area and time and the response of the fishery to area-time closures is uncertain. It is questionable if any closure would result in major reduction in the catch of all prohibited species without adversely impacting the groundfish fishery.

---set fishery specific incidental catch rates

It is very difficult to define acceptable rates of catch that would be appropriate for all gears and area-times. Setting different acceptable rates (for gear, areas, etc.) would be extremely complex and difficult to administer.

---reduce OY of groundfish

This procedure would obviously impact adversely on the groundfish fishery and should not be considered seriously until all other options have failed.

Three Preferred Options

In order of preference, the Team determined that the best procedures for reducing incidental catches of prohibited species are:

1. To set incidental allowable catches (IAC) coupled with imposition of incidental catch fees for each prohibited species;
2. To set IACs alone for each prohibited species; and
3. To impose incidental catch fees alone.

Preference 1: Set IAC Plus Fees

a. The Team target is to reduce incidental catch of each prohibited species by 75% in 5 years. The procedure to do so is to reduce incidental catches by 15% per year from the 1977-1979 average catches.

b. The target level of reduction is based on a report by Wespestad, Hoag, and Narita (1981) entitled "Methods of reducing the incidental catch of prohibited species in the Bering Sea groundfish fishery through gear modifications." It is assumed that (a) off-bottom trawls will be used for all species, especially for pollock; (b) on-bottom trawls will be used for yellowfin sole, other flounders, and turbot; and (c) longlines will be used for sablefish, cod, and other species. Based on the assumptions, the fishery in 1977-1979 would have resulted in average reduction of 75% incidental catch of prohibited species.

Therefore, this 75% reduction is set as a target level. A target reduction period of 5 years is considered to be reasonable for a gradual change in fishing techniques and gear modifications to reduce incidental catches.

c. The target level for reduction each year could be changed due to changes in abundance and availability of each prohibited species, and the socio-economic importance of each species in the future. In such cases, the Council should re-evaluate the target levels and amend the Plan.

d. Coupled with the establishment of IACs, fees are also to be charged for the catch of each prohibited species. The fees to be charged for each individual taken will be calculated each year using the procedures described in a report by Marasco and Terry (1981) on "Incidental catch fees: A rational approach to the problem of the incidental catch of prohibited species."

Rationale: A fee is charged to compensate the U.S. for incidental kill of these species that would otherwise be recruited to the domestic fishery had they not been caught.

e. When the IAC allocated to each nation is taken during the course of its fishery for groundfish, the fishery for that nation is subject to closure in the same manner as if the quota of target species is achieved.

f. The IAC allocated to each nation is to be directly proportional to the amount of groundfish allocated to each nation.

Preference 2: Set IAC exclusively.

(See Preference 1, parts a, b, c, and e.)

Preference 3: Set Fees exclusively.

(See Preference 1, part d.)

Determination of Incidental Catches

The Team further defined how incidental catches will be estimated.

Incidental catches of prohibited species will be estimated by the U.S. Observer Program and, if appropriate, from foreign reported catch data.

The longline fishery is exempt from IACs for salmon and crabs because the gear type has negligible impact on these species. In the case of halibut, the survival rate of longline caught and released halibut is about 75%. Therefore, the incidental catch of halibut by longliners is assessed at 25% of estimated catches. For all other fisheries, the mortality factor is close to 100% and the incidental catch is assessed the full amount estimated.

Determination of IACs

In Team preference 1, the target level of reduction for each prohibited species is 75% of the 1977-79 average catches in 5 years. The Team wishes to note that abundance of prohibited species will vary from year-to-year, that OY for groundfish will change, and that the allocation of groundfish to different nations and fishing fleets will also change from year-to-year. With these changes, the incidental catches encountered will obviously vary. Therefore, it will be difficult to predict the proper level of IACs in order to meet objectives of reducing rates of prohibited species catches while not impacting adversely on the groundfish fisheries.

The Team, therefore, points out that it is reasonable to determine IACs according to prohibited species abundance and OY of groundfish. No convenient procedure, however, has been determined to set these IACs. The Team questions if a reliable procedure may be determined. Perhaps, the emergency authority of the Regional Director may be used to modify individual year's IAC to reflect abundance of prohibited species, abundance of groundfish, and socio-economic importance of prohibited species.

SUMMARIES OF WRITTEN COMMENTS
BERING SEA/ALEUTIAN ISLANDS GROUND FISH
FISHERY MANAGEMENT PLAN
Amendment #1

1. Melvin J. Monsen, Jr., Bering Sea Fishermen's Association

Mr. Monsen supports the closure of INPFC Areas I and II in the Bering Sea to protect king salmon and herring of Western Alaska Origin.

2. William P. Johnson, Bristol Bay Native Association

Mr. Johnson submitted Resolution No. 81-03 of the Bristol Bay Native Association wherein it was resolved "...by the Full Board of Directors and the Bristol Bay Native Association that the North Pacific Fishery Management Council take the appropriate action to protect the interests of Western Alaska Fishermen."

3. Rodger T. Davies, Deep Sea Fishermen's Union of the Pacific

Mr. Davies opposes allowing drag fishing in the Bristol Bay Pot Sanctuary Area and the Winter Halibut Savings Area.

4. Norman A. Cohen, Attorney for the plaintiffs in the case Hanson, et al. v. Klutznik, et al.

Mr. Cohen presented arguments for the closure of INPFC Areas I and II in the Bering Sea. He attached an Affidavit and Report from David Marshall, the report titled "Economic Value of the Incidental Catch of King Salmon by Foreign Fishing Vessels in the Fishery Conservation Zone of the Bering Sea, 1977-1979: The Economic significance of the Catch for the Villages of Western Alaska." Mr. Cohen emphasized the following significant points from Mr. Marshall's report:

- (a) The king salmon fishery is the most important commercial and subsistence fishery to southwestern Alaska.
- (b) The southwestern region of Alaska is one of the most cash poor areas of the state and nation.
- (c) The Commercial fisheries in that region are marginal economically and any additional fish can mean the difference between a profitable enterprise and the inability to continue participating in the fishery.
- (d) The ex-vessel value of the king salmon lost to the groundfish fishery is approximately \$2,280,000 and the value which could be obtained by the region as a whole would be approximately \$7,000,000.

Mr. Cohen argues that adoption of the amendment proposal by Nunam Kitlutsisti (closure of INPFC Areas I and II) is required by the express terms of the Fisheries Conservation and Management Act.

5. Dan Boyette, Bethel, Alaska

Mr. Boyette advocated time/area closures in the Bering Sea which will allow for a maximum return of salmon stocks.

6. Robert D. Alverson, Fishing Vessel Owner's Association

Section 11 and 12 Optimum Yield and Total Allowable Catch

Mr. Alverson supported Option 1 of the amendment package for determining optimum yield and total allowable catch. He also supported the apportionment procedures as presented in Option 1. He would like to see additional data on the status of the Bering Sea Resource incorporated into the Amendment.

Section 14.1 Management Objectives

"The Association has no objections to the changed management objectives except that the Council failed to provide a rationale for the proposed change."

Section 14.2 Area, Fisheries, and Stocks Involved

Eliminate the reference to Canadian Fishermen.

Section 14.4.1 Permit Requirements

Mr. Alverson queries, "Does a permit issued by the Secretary of Commerce take the place of the State of Alaska license and interim use permit?"

Section 14.4.3.D Season Adjustment of Time and Area

Mr. Alverson says that the Association would like a condition to be appended to the Regional Director's authority, such that following any action of in-season adjustments, all reasons must be disclosed to the Council.

Section 14.4.3 Fishing Area Restrictions

Mr. Alverson proposed the following wording concerning the Pot Sanctuary, Area A:

"Those vessels engaged in the fishing for crabs in Area A may use trawl gear for the purpose of obtaining bait, otherwise there shall be no trawl activity."

Mr. Alverson also supported the continued use of Area B and the Misty Moon grounds for experimental trawl activity through the 1981 season.

7. Henry Haugen, Seattle, Washington, attorney for a number of domestic trawl interests.

Mr. Haugen does not support the multi-species management approach in the Bering Sea, but thinks Option 2 is desirable because it is a more conservative approach.

Mr. Haugen expressed his concern that the Regional Director of NMFS would have too much authority if he were able by field order to determine TAC's, release reserves, and open and close areas. He would rather see the Council make management decisions after public review of proposed actions.

He supports removing the closed area concept for U.S. trawlers, and is decidedly against a 1,500 mt by-catch quota for halibut in the Bering Sea and the Gulf of Alaska. He presents arguments against affording special protection to the halibut longline fishery to the detriment of U.S. trawlers.

8. Laura Noland, Greenpeace Alaska

Ms. Noland wrote that Greenpeace supports the area closures in the Bristol Bay Pot Sanctuary and the Winter Halibut Savings Area. Greenpeace also supports closing INPFC Areas I and II to foreign trawling in the Eastern Bering Sea.

9. Paul Gates, U.S. Department of the Interior

Mr. Gates commented that the Annex I, ABC species stock assessments, are not accurately reflected in Table 23.1 (Option 1), and Table 23.3 (Option 2), especially the TAC for Pacific Ocean Perch. Mr. Gates comments:

"Similar inconsistencies exist for the other species groups (e.g. Pacific Cod), all indicating a lack of consideration for the stock conservation intent of Annex I. We suggest that a concise explanation of the methodology used to derive the 'proportion factors' in Table 23.1 and the 'relative yield' factors in Table 23.3 be incorporated into the FMP document as the credibility of TAC values is determined by the soundness of the biological data on which they are based."

Mr. Gates would like the draft FMP amendment to reflect compliance with migratory bird treaties' requirements, and to consider the question of potential "detrimental alteration of the (migratory bird's) environment."

Mr. Gates believes that Marine Mammals, especially, polar bears, should be given much more consideration, i.e. more discussion on the effects of various fishery management practices and fishing practices upon marine mammals. "It is suggested that a section be added to the FMP amendment document to discuss methods by which the Maximum Sustained Yield (MSY) fishery management approach integrates with the Optimum Sustained Population (OSP) requirements of the Marine Mammal Act."

"The FMP Amendment should include a discussion of the scope, requirements, and costs of the biological investigative program necessary to fulfill the FCMA requirements that fishery management decisions be based upon sound scientific information."

In addition, Mr. Gates expressed support for closing INPFC Area I and II in the Bering Sea.

10. Michael G. Stevens, Marine Resources Co.

Mr. Stevens supports none of the options as stated in the amendment package. He would support an amendment which contained the following:

- (a) A reserve of 25% of the OY
- (b) A gradual release of the reserves to TALFF by the Regional Director, i.e.
 - 40% in month 4
 - 40% in month 6
 - 20% in month 8

The allocations would not be mandatory, if the circumstances so warranted.

- (c) Estimating DAH, DAP and JVP at the beginning of each fishing year.
- (d) Changing the fishing year to begin January 1 and close on December 31.
- (e) Revising MSY, EY and ABC values for 1981 from 1979 figure using 1980 resource surveys.
- (f) Including specific objectives to encourage orderly development of domestic groundfish fisheries.
- (g) Allowing domestic trawling in the Bristol Bay Pot Sanctuary and the Winter Halibut Savings Area.

In addition, he does not support time/area restrictions on domestic trawlers to reduce incidental catches of halibut, and he does not support a ban on all trawling in the Eastern Bering Sea. He states, "The problem of interception of Western Alaska King Salmon should be solved through actions upon the exclusively foreign components which most significantly impact the resource."

11. Nick Szabo, Chairman, Alaska Board of Fisheries

Mr. Szabo submitted Resolution No. 80-79 FB wherein it was resolved "the Alaska Board of Fisheries request that the North Pacific Fishery Management Council take immediate emergency action to amend the Bering Sea/Aleutian Islands Groundfish FMP in a manner to reduce or eliminate western Alaska chinook salmon interceptions in the Bering Sea trawl fishery..." and "...that the Alaska Board of Fisheries requests that the Federal Government through both the NPFMC and INPFC support research to determine continent of origin of chinook salmon in the Japanese landbased draft net fishery and the Gulf of Alaska trawl fishery and such research as required to further study alternatives to reduce trawl interceptions of native Alaskan chinook salmon."

12. The Highliners Association

The Highliners Association does not support any time/area closures which would affect domestic fishermen.

13. Harold Spark, Nunam Kitlutsisti

Mr. Spark supported Option 2 of the amendment. He was in favor of increasing the NMFS Regional Director's authority to manage the fishery in-season.

He would like the Council to require observer coverage on domestic trawlers to control for catch of prohibited species. He would like this proposal to go hand in hand with any increases in DAH.

He stated that Nunam Kitlutsisti supports the immediate closure of INPFC Areas I and II in the Bering Sea.

14. Stephen B. Johnson, Attorney for the Japanese Deep Sea Trawlers Association

Mr. Johnson submitted comments concerning management techniques to control the incidental catch of prohibited species. These comments are applicable to an amendment for the Bering Sea/ Aleutian Islands Groundfish FMP on prohibited species.

Concerning Amendment #1, Mr. Johnson is against closing INPFC Areas I and II in the Bering Sea.

15. Paul MacGregor, attorney for the North Pacific Longline-Gillnet Association (NPL).

Mr. MacGregor says that NPL supports Option 3 for calculation of OY (preserve the status quo by continuing to manage the groundfish complex on a species by species basis).

Concerning the Derivation of Acceptable Biological Catch, Annex I, NPL takes issue with the recommendation to reduce sablefish OY by 25% from 3,500 mt to 2,600 mt in the eastern Bering Sea and from 1,500 mt to 1,100 mt in the Aleutian area. NPL contends that the recommendation is not based on the best scientific evidence available, and that is based on a decrease in EY which was caused primarily by "...the implementation of an entirely new regulatory regime under the..." FCMA.

NPL maintains that the proposed prohibition on all foreign fishing within 12 miles of the baseline used to measure the territorial sea north of the Aleutians and East of 170° 30' W. longitude inadvertently prohibited longliners from fishing inside 12 miles in a corridor between 170° 00' W. longitude and 170° 30' W. longitude. Their point is that the area closure was designed to protect crab stocks and crab gear from trawlers, and should not apply to longliners.

Concerning the incidental catch of prohibited species, NPL stated that longliners catch "...virtually no salmon and very little crab..." NPL also states that "...while incidental catch of halibut may be somewhat higher than salmon and crab..." observer reports and research cruises indicate that the survival rate for incidentally caught halibut may be as high as 80-85%.

16. Jay D. Hastings, attorney for the Japan Fisheries Association (JFA)

JFA supports Option 1, the multiple year/multiple species approach for deriving OY, with minor suggested changes. One suggestion is that release of reserves should be done on a schedule which releases 40% at the beginning of the 4th month, 40% at the beginning of the 6th month, and 20% at the beginning of the 8th month.

JFA would like to see two periods for release of unutilized DAH, at the beginning of the 6th month and 8th month, as is currently the case under the Preliminary Fishery Management Plan.

JFA recommends that the release of Reserve for correction of Operational Problems to either DAH or TALFF, once it is determined that the reserve will no longer be necessary, be mandatory rather than discretionary as it is written in the amendment package.

JFA proposes that the upper limit for ABC/OY range be set at a minimum of 2.5 million mt, slightly above the upper end of the MSY range of 2.4 million mt. This proposal is based on the concept of MSY as a long-term average and that as such setting OY above MSY at some point in time may be desirable to ensure full utilization of the resource. JFA notes that:

"The latest version of the Bering Sea Prognostic Bulk Biomass ecosystem model (PROBUB) demonstrates that the MSY, based upon a minimum sustainable exploitable biomass for the groundfish complex of about 9.5 million mt, may be much higher than 1.7-2.4 million mt. Should this be the case, ABC/OY could easily surpass the current upper range of MSY with improved stock conditions."

SUMMARY: NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
PUBLIC HEARING - BETHEL, NOVEMBER 20, 1980

Meeting Chairman: Harold Lokken, NPFMC Member

Staff Attendance: Clarence Pautzke
Judy Willoughby

Agenda: Bering Sea/Aleutian Island Groundfish - Amendment #1 to the FMP

Attendance: 27

Number Testifying: 20

Individuals Testifying:

Chuck Chuliak, Yut-Bait Coop, Nunapitchuk, AK
Axel Johnson, Emmonak Corp., Emmonak, AK
George Neck, Yukon-Kuskokwim Health Coop., Bethel, AK
Paul R. Kiunya, Sr., Lower Kuskokwim Coast Corp., Kipnuk, AK
Oscar Nick, Atmautluak Village Council, Atmautluak, AK
Leo Fitka, Maserculiq Fish Processors, Marshall, AK
Michael Hunt, Kotlik, AK
Jack Williams, Sr., Bering Sea Advisory Committee, Mekoryuk, AK
Isaac Hawk, Eek Corp., Eek, AK
Joe Paniyak, Chevak, AK
Harry Wilde, Sr., Mt. Village Corp., Mt. Village, AK
Patrick Phillip, Alakanuk, AK
Fritz George, Akiachak Ltd., Akiachak, AK
Joseph Lomack, Akiachak Ltd., Akiachak, AK
Charles Hunt, Betheliak, AK
Frank Matthew, Sr., Quinhagak Corp., Quinhagak, AK
Joseph Chimegarer, Kuskokwim United Fishermen, Kwerhluk, AK
Owen Ivan, Akiak, IRA Council, Akiak, AK
Harold Sparck, Nunam Kitlutsisti, Bethel, AK
Moses Pavilla, Sr., Atmautluak Fish Processors, Atmautluak, AK

SYNOPSIS OF TESTIMONY

Economic Problems

In Western Alaska the cost of living is very high, gas is expensive, and fishermen depend on salmon for cash and subsistence over winter. Many have no other income source. There were about 660 fishermen in the Yukon-Kuskokwim area in 1980. For these fishermen, about 20-30% of the catch goes to subsistence and winter food and about 70-80% is used commercially. Average income is about \$2,000 to \$2,500 per season per fisherman. Unemployment runs as high as 80% in the winter. Herring and salmon are vital winter staples.

Incomes have decreased considerably because of the low price being paid for fish and because of the lack of fish. The lack of fish and poor knowledge of resource conditions of chinook combined with a conservative management approach by ADF&G, have caused fishing seasons to be short. Last summer fishermen were limited to two 6-hour periods per week on the Kuskokwim, and two 12-hour periods per week on the Yukon. Villages are located where resources are harvested. It is traumatic to the whole village when the resource is down. Villages cannot move. Because of resource problems, banks have no confidence in Western Alaska fishermen. Also, no offshore movement of natives to the bottomfishery is expected. Tradition and economics restrict them to in-shore fisheries.

Resource Problems

Both the king salmon and herring stocks are depressed from traditional levels remembered by native elders. Because there seems to have been no noticeable changes in natural conditions, the lack of resource can be attributed to foreign interceptions. Though the fisheries have improved slightly since FCMA was legislated, the foreign fleets, particularly the Japanese, have had a large negative impact on the herring and chinook stocks that have been fished traditionally by Western Alaskans. The foreign fishermen do not avoid prohibited species and when these species are caught and returned to the sea, they suffer high mortality. Western Alaskans also fear that oil and gas development will degrade the fisheries.

Recommendations

1. Improve coast guard enforcement and surveillance.
2. Remove the foreign fisheries from the FCZ or at least limit that fishery to the summer months.
3. When TALFF is reached, stop foreign fishing.
4. Only domestic fishermen should be allowed to fish and they should focus on summer months.
5. Encourage joint-ventures.
6. Gather new biological data on herring stock migration routes.
7. Appoint a Western Alaska representative to the Council.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE
 Alaska Region
 Post Office Box 1668
 Juneau, Alaska 99802

DEC 12 1980

December 9, 1980

Jim Branson, Executive Director
North Pacific Fishery Management Council
P.O. Box 3136 DT
Anchorage, AK 99510

Dear Jim:

Attached is a proposal from Poland, accompanied by a November 24, 1980, memorandum from Bill Gordon, to amend fishing regulations in the eastern Bering Sea that would permit fishing with pelagic trawls in part of the Winter Halibut Savings Area (Savings Area). Foreign fishing regulations currently prohibit foreign trawling in the Savings Area from December 1 to May 31 to protect winter concentrations of juvenile halibut and spawning concentrations of pollock and flounders.

Poland would benefit from such an amendment; other nations fishing off Alaska currently do not use pelagic trawls and would not benefit by such an amendment unless they adopted them.

The Council's FMP for the Bering Sea and Aleutian Islands Groundfish Fishery will likely be implemented in March or April 1981 and will supersede the PMP; action to amend the PMP is, therefore, redundant.

It is appropriate that any action on Poland's proposal be taken by the Council with advice from its Advisory Panel and Scientific and Statistical Committee. Accordingly, we are asking the Council to consider Poland's proposal and amend the FMP if that is the Council's decision.

Sincerely,

for *Robert R. Simpson*
Robert W. McVey
Director, Alaska Region

Enclosure



10TH ANNIVERSARY 1970-1980
National Oceanic and Atmospheric Administration
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tradition of service to the Nation



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 1668

Juneau, Alaska 99802

Date : December 9, 1980

Reply to Attn. of:

To : F/CM - William G. Gordon

From : F/AKR - Robert W. McVey

Subject: Proposal from the Polish Delegation

We have made a cursory review of the proposal by the Polish delegation that would permit pelagic trawling in part of the Winter Halibut Savings Area (Savings Area) that accompanied your November 24, 1980, memorandum.

Currently, the preliminary fishery management plan for the Trawl Fisheries and Herring Gillnet Fishery of the Eastern Bering Sea and Northeast Pacific (PMP) includes a provision in its management regime that closes the Savings Area to foreign trawling from December 1 to May 31. Foreign longlining landward of the 500 meter isobath is prohibited during the same period. The trawling restriction protects winter concentrations of juvenile halibut and spawning concentrations of pollock and flounders; the longlining restriction protects juvenile halibut.

We concede that prohibiting bottom trawls but allowing pelagic trawls would likely provide the same protection as the trawl closures. Poland is the only foreign nation off Alaska at present that uses pelagic trawls and would benefit by a change in the management regime. Other countries may not elect to fish in the Savings Area even if pelagic trawls were allowed.

Although management of foreign fishing in the Eastern Bering Sea is currently under the PMP, the North Pacific Fishery Management Council (Council) has prepared, and the Secretary of Commerce has approved, a fishery management plan (FMP) that will supersede the PMP. Implementation of the FMP is expected March or April 1981. Action to amend the PMP would, therefore, be redundant.

It is appropriate that any action on Poland's proposal be taken by, or with advice from, the Council and its Advisory Panel and Scientific and Statistical Committee. Accordingly, we are asking the Council to consider Poland's proposal and amend the FMP if that is the Council's decision.

cc:
NPFMC





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

November 24, 1980

F/CM:WCG

TO: Distribution
FROM: F/CM - *William G. Gordon*
SUBJECT: Proposal from Polish Delegation

On November 18, 1980, we met with a Polish delegation headed by Marian Fila, Director General, Ministry of Foreign Trade and Maritime Economy. (Mr. Fila is an old acquaintance from ICNAF days.) Mr. Fila and the delegation were in the United States for discussions with the Department of State and NOAA/NMFS concerning Polish fisheries in 1980 and proposals for 1981. The Office of International Fisheries Affairs (F/IA) intends to prepare and distribute a report of that meeting. Attached is a list of the proposed Polish amendments of foreign fishing regulations within the U.S. fishery conservation zone.

The purpose of this memorandum is to solicit your views regarding these proposals. In order to be implemented, some of the proposals would require amendments to existing fishery plans (PMPs and FMPs). Since amendments should originate within the regions (either the Councils or regional offices), I am suggesting that each regional director handle as appropriate. In either case, I would appreciate your initial views and/or comments by December 15 and views and comments from the Councils by mid-January or as soon thereafter as Council discussions will permit.

Attachments: 18. 19 Attachments of Bureau of Alaska at present use of Alaska

Distribution:

- F/NER - Allen E. Petersen, Jr.
- F/SER - Harold B. Allen
- F/SWR - Alan W. Ford
- F/NWR - Herbert A. Larkins
- F/AKR - Robert W. McVey ✓
- F/NEC - Robert L. Edwards
- F/NWC - William Aron
- F/IA - Carmen J. Blondin
- F/CM7 - Denton Moore
- F/CM6 - Roland Finch

| FILE | ACT | INFO | ROUTE TO | INIT. |
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| | | | Int. Div. | |
| | | | Int. Affairs | |
| | | | Ext. Aff. | |
| | | | Int. Sec. | |
| | | | Ext. Sec. | |
| | | | Int. Sec. | |

*See last page of
Attachment for your
response.*



U.S.-POLISH DISCUSSIONS
NOAA/IMFS
November 18, 1980

List of U.S. Participants

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National Oceanic and Atmospheric Administration

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Acting Deputy Director
Office of International Fisheries Affairs

Mr. Alfred J. Bilik
Fishery Management Officer
Permits and Regulations Division
Office of Conservation and Management

Ms. Martha O. Blaxall
Director
Office of Utilization and Development

Mr. William G. Gordon
Director
Office of Conservation and Management

Mr. William G. Hannum
Chief
Export and Domestic Market Development Branch
Office of Utilization and Development

Ms. Susan E. Jelley
Fishery Management Specialist
(Foreign Permits and Regulations)
Permits and Regulations Division
Office of Conservation and Management

Dr. Fred L. Olson
Economist
International Fisheries Development and Services Division
Office of International Fisheries Affairs

Mr. Morris M. Pallozzi
Chief
Law Enforcement Division
Office of Conservation and Management

Mr. Daniel A. Reifsnnyder
Foreign Affairs Officer
International Organizations and Agreements Division
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List of Polish Participants

Head of Delegation

Mr. Marian Fila
Director General
Ministry of Foreign Trade and Maritime Economy

Mr. Josef Baj
Director General
Fisheries Central Board
Ministry of Foreign Trade and Maritime Economy

Mr. Norbert Drazkowski
Chief of Cooperation Department
Rybex Foreign Trade Office
Fisheries Central Board
Ministry of Foreign Trade and Maritime Economy

Mr. Romuald Pietraszek
Commercial Counselor and Minister Plenipotentiary
Embassy of the Polish People's Republic
New York, New York

Mr. Jan Sprus
Chief of Fleet Operations
Fisheries Central Board
Ministry of Foreign Trade and Maritime Economy

Mr. Ireneusz Wrzesniewski
Fishery Attache
Office of the Commercial Counselor
Embassy of the Polish People's Republic
New York, New York

POLISH PROPOSED AMENDMENTS OF FOREIGN
FISHING REGULATIONS WITHIN US FISHERY
CONSERVATION ZONE

Atlantic Fishery Conservation Zone

Poland is interested in the directed fisheries of the following species: mackerel, silver hake, shortfin squid /Illex/. The experience and performance of Polish fisheries in New England and Middle Atlantic areas in preceding years indicate that any allocation in the directed fishery for these species can be utilized successfully only if:

1. Considerable corrections of the present regulations could be made;
2. By-catch quota could be at least 1/5-1/3 of the specific species quota levels in directed fisheries. By-catch problem concerns particularly the following species: alewife, butterfish, herring, red hake, scup, longfin squid /Loligo/, "other" finfish.

M a c k e r e l

The present system of regulation for this species should be changed as follows:

- to move western and northwestern borders of the "windows" 1-4 about 10 miles toward seashore;
- to open the "window" 4 and 5 for mackerel fishery from January to April;
- to allow fishing at depths 100-130 fathoms in the "window" 4.

S i l v e r h a k e

It is postulated to open "window" 4 for silver hake fishery from April to June with use of a bottom gear. The regulations binding at present prevent the fishery in the most productive fishing grounds and during the best season.

S q u i d /Illex/

It is proposed to accept the following changes:

- to project the "window" 4 eastward to coordinates $40^{\circ}15'N$ and $69^{\circ}10'W$; $39^{\circ}55'N$ and $69^{\circ}10'W$.

The squid-directed fishery could operate under following conditions: "windows" 4 /projected/ and 5 opened from April to July for bottom and pelagic trawls, depth 80-150 fathoms.

- to ease experimental jigging fishery by permitting to operate with that kind of fishing gear in any offshore fishing ground of FCZ, without limitations or only with those effective in 1979.

B y - c a t c h

It was indicated that by-catch is a considerable problem in full utilization of national quotas in directed fisheries. It was reported that following species are taken during:

- mackerel - directed fishery: alewife, dogfish, herring, scup, shortfin, and longfin squid. The total by-catch quota for these species should be at least 20% of the mackerel quota;
- squid-directed fishery: butterfish, herring, silver hake, red hake, mackerel, dogfish. The total by-catch quota for these species should be at least 25% of the total Illex quota;
- silver hake-directed fishery: squid /Illex and Loligo/, mackerel, red hake, dogfish, By-catch in this fishery is rather substantial and should be planned on the level of at least 30% of the overall quota for this species.

The proposed split of the by-catch species in the directed fisheries for mackerel, silver hake, and squid /Illex/ is as follows:

| Directed Fishery Species | By-catch percents of the directed fishery species quota | | | | | | | | | | |
|--------------------------|---|-------------|---------|---------|----------|------|----------|-------------|---------------|--------|-------|
| | Total | butter-fish | herring | alewife | rod hake | scup | mackerel | silver hake | other finfish | Loligo | Illex |
| Mackerel | 20 | 1 | 2 | 2 | 2 | 3 | - | 2 | 5 | 2 | 1 |
| Silver Hake | 30 | 1 | 2 | 2 | 5 | 1 | 5 | - | 4 | 5 | 5 |
| Squid Illex/ | 25 | 4 | 1 | 2 | 2 | 2 | 5 | 4 | 2 | 3 | - |

It is suggested to allocate by-catch quotas on that basis for 1981 pending further alterations in subsequent years in accordance with observed by-catches /in the same manner as in Pacific fishery/.

It should be emphasized that the present regulations in the Atlantic FCZ if kept would prevent any fishing activity of Polish fishing fleet in that area. The quotas for by-catch species are the most limiting factor.

Pacific Fishery Conservation Zone
=====

Washington, Oregon, California

P r o p o s e d a l t e r a t i o n

The basis for the reports concerning catch of allocated species should be daily fishing log.

Observers reports of this matter should be taken into account only as control information.

C o m m e n t s

Polish fishing vessels consider allocated species not as a target species but only as "by-catch" /except hake/.

The daily fishing log contain information about amount of "by-catch" estimated according to the processing report data. This information is more credible than the information collected by observers, because of:

- the observers activity cover about 30% of Polish fishing vessels,
- the observers catch reports are taken as an average catch data for all Polish fishing vessels,
- observers information is inaccurate because it concerns the examined houl only,
- a "by-catch" from houl is often treated by observers as the "by-catch" in one houl, in case when the "by-catch" taken during the night is gathered for examination in the morning.

That is the reason, in our opinion, that the daily fishing log data are more adequately than the observers information.

Bering Sea and Aleution Island Area

P r o p o s e d a l t e r a t i o n

The limit the "Winter Halibut Saving Areas", as described in Section 14.3.2.3 and Appendix III /Federal Register, November 19, 1979/ to the part of this area bounded by straight lines connecting the following coordinates in the order listed:

| | |
|--------------------------|--------------------------|
| 54°36'N and 164°55'42"W; | 52°40'N and 170°00'W; |
| 55°30'N and 170°00'W; | 55°30'N and 166°47'W; |
| 56°00'N and 167°45'W; | 56°00'N and 166°00'W; |
| 56°30'N and 166°00'W; | 56°30'N and 163°00'W; |
| 56°20'N and 166°10'W; | 54°36'N and 164°55'42"W. |

The second part of the "Winter Halibut Saving Areas", bounded by straight lines connecting the following coordinates in the order listed:

| | |
|-----------------------|-----------------------|
| 56°18'N and 170°24'W; | 56°20'N and 169°03'W; |
| 56°12'N and 168°46'W; | 55°56'N and 169°10'W; |
| 55°56'N and 170°24'W; | 56°18'N and 170°24'W; |

A should be open for pelagic fishery of pollock all year round.

C o m m e n t s

This restriction has been established in order to prevent high incidental catch and mortality of juvenile halibut which are known to occur in winter concentrations in the "Winter Halibut Saving Areas".

Polish vessels are carrying out directly fishery on pollock by pelagic trawl. By-catch of the other species in pollock fishery is only incidental - 0,21% in 1979 in which flatfish consist of 0,003%.

Then, pelagic catches of pollock are not dangerous for halibut resources.

North Pacific Fishery Management Council

AGENDA E-6(f)
February 1981

Clement V. Tillion, Chairman
Jim H. Branson, Executive Director

Suite 32, 333 West 4th Avenue
Post Office Mall Building



Mailing Address: P.O. Box 3136DT
Anchorage, Alaska 99510

Telephone: (907) 274-4563
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February 10, 1981

Mr. Robert W. McVey
National Marine Fisheries Service
Post Office Box 1668
Juneau, Alaska 99802

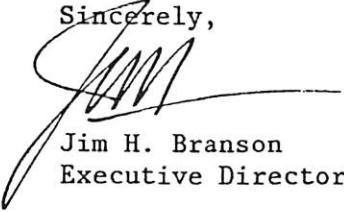
Dear Bob:

Enclosed is an Addition to Amendment #2 to the Bering Sea/Aleutian Islands Groundfish FMP that changes the Pacific cod numbers so the FMP will conform to the PMP when the FMP is implemented. The changes are needed to prevent disruption of the Pacific cod fishery, now expanding rapidly as a U.S. industry.

The enclosed package contains the necessary changes to the FMP and the justification. References to the Code of Federal Regulations are to be supplied by NMFS. We understand from the NMFS Regional Office that the Environmental Assessment and Declaration of Non-Significance under E.O. 12044 proposed for the PMP Pacific cod amendment apply to the Addition to Amendment #2. We therefore refer you to 45 FR 231 p. 79127, 45 FR 238 p. 81056, and 46 FR 5 p. 2082 for the appropriate documentation.

I understand that the above change is the last hurdle before implementation of this FMP. I hope, and I am sure you do too, to see this FMP "on line" very shortly.

Sincerely,



Jim H. Branson
Executive Director

Enclosure

cc: Terry Leitzell
Jeff Povolny

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

GROUND FISH IN THE BERING SEA/ALEUTIAN ISLANDS AREA
FISHERY MANAGEMENT PLAN

ADDITION TO AMENDMENT #2

Introduction

Amendment #2 to the Fishery Management Plan for Groundfish in the Bering Sea/Aleutian Islands Area (FMP) was submitted to the National Marine Fisheries Service on October 22, 1980. It proposed to increase the Domestic Annual Harvest (DAH) for yellowfin sole from 2,050 mt to 26,200 mt and for other flatfish from 1,300 mt to 4,200 mt. Amendment #2 apportioned the increases to Joint Venture Processing (JVP) and reduced the initial Total Allowable Level of Foreign Fishing (TALFF) by equal amounts. As a result, the JVP is increased from 850 mt to 25,000 mt for yellowfin sole, and from 100 mt to 3,000 mt for other flatfishes. The Optimum Yield (OY) for both fish categories remains the same as in the FMP.

It is herein proposed to incorporate into Amendment #2 changes to the Pacific cod management regime as follows: (a) decrease Maximum Sustainable Yield (MSY) from 58,700 mt to 55,000 mt; (b) increase the Equilibrium Yield (EY) from 58,700 mt to 160,000 mt; (c) increase the Allowable Biological Catch from 58,700 mt to 160,000 mt; (d) increase OY from 58,700 mt to 78,700 mt; (e) increase the Reserve from 2,935 mt to 3,935 mt; (f) increase the Domestic Annual Processing Capacity (DAP) from 7,000 mt to 26,000 mt; and (g) increase the Domestic Annual Harvest (DAH) from 24,265 mt to 43,265 mt.

Justification

This amendment to the FMP is based on a similar amendment approved in December 1980 and January 1981 (SEE 45 FR 238, p. 81056 AND 46 FR 5, p. 2081) to the Preliminary Fishery Management Plan (PMP). In order to maintain consistency in the management regime of the Bering Sea groundfish fishery, the FMP should conform as closely as possible to the PMP. The justifications for changing the MSY, EY, ABC, OY, Reserve, DAP, and DAH are as follows:

A. MSY

Because of the incidental catch of Pacific cod in foreign trawl catches, the use of catch per unit of effort (CPUE) data for determining trends in the commercial fishery is questionable. Moreover, the semi-demersal distribution of cod makes them difficult to assess with research vessel trawls. Therefore, MSY for this species has been estimated on the basis of commercial catch data. Because catches increased rapidly in the mid-1960's and then stabilized, the average catch during this period of stability (1968-76, see Table I.12) was assumed to reflect at least a minimal estimate of MSY. The original estimate was 58,700 mt, but this figure includes catches from west of 180° which lie outside the U.S. fishery conservation zone (FCZ). A more appropriate estimate including only those catches within the FCZ from the eastern Bering Sea (east of 180°) and Aleutian Islands area is 55,000 mt.

B. EY

Analysis of data since 1978 indicates a substantial increase in the abundance of Pacific cod. The relative abundance of Pacific cod more than doubled between 1976 and 1978 based on NMFS research survey data. In 1978 there appeared to be an unusually high abundance of age 1 cod (1977 year-class) in research vessel catches (Bakkala et al., 1979). This same year-class was again abundant in research vessel catches during the 1980 survey of the Eastern Bering Sea (Bakkala, et al. 1980). Comparable data from the NMFS 1975 (Pereyra, et al., 1976) and 1979 NMFS surveys show a seven fold increase in CPUE from 2.7 kg/km to 19.8 kg/km.

Age data from the commercial fishery indicate that the abundance of a cod cohort peaks in the fishery at age 3, contributes substantially to catches at age 4, but declines sharply at ages 5 and 6. Therefore, the 1977 year-class will make its greatest contribution to the fishery in 1980 and 1981.

The estimated biomass of cod from the 1979 survey was 792,300 mt with a 95% confidence interval of 603,200 mt - 981,400 mt. About 81% of the total biomass was made up of age groups 1 and 2.

Using population estimates by age from the 1979 NMFS survey, historical growth rates, a range in instantaneous natural mortality rates of 0.5 - 0.7, and various possible fishing mortalities by age, the biomass of cod in 1980 and 1981 has been projected. These projections indicate that the exploitable biomass (age groups 2-5) in 1980 and 1981 should be within the following ranges:

| <u>Year</u> | <u>Predicted Range in Biomass (mt)</u> |
|-------------|--|
| 1980 | 740,000 - 910,000 |
| 1981 | 803,000 - 1,248,000 |

Data from the 1980 NMFS survey produced an estimated mean biomass of 913,300 mt with a 95% confidence interval of 795,000 - 1,031,000 mt which is similar to the projected range based on 1979 data.

To calculate the PMP EY in 1980 an exploitation rate of 20 percent and the lower end of the projected biomass were used, resulting in an estimated EY of 148,000 mt.

Applying the same techniques, the FMP EY is estimated by using the conservative lower end of the projected range in biomass (803,000 mt) and an exploitation rate of 20 percent. The EY is therefore 160,000 mt.

C. ABC

ABC will exceed estimates of MSY in 1980 and 1981 due to the recruitment of the strong 1977 and 1978 year-classes during the short period they remain in the fishery. Because the biomass estimate from the 1980 NMFS survey supports the validity of the projected biomass for 1980 based on 1979 data, ABC was considered to equal the projected EY of 148,800 mt in the PMP in 1980. ABC equals 160,000 mt in the FMP, based on the 1981 survey and projected biomass range.

D. OY

The large 1977 year-class will be available to the fishery in 1980 and 1981 as 3 and 4 year old fish. Therefore, an increase in OY is justified. Moreover, since natural mortality will rapidly reduce the abundance of this year-class during 1981 and thereafter, it is desirable to increase the harvest of Pacific cod during the short period that the abundant year-classes remain in the fishery. Due to possible inaccuracies in the 1979 and 1980 biomass estimates and in the projections of the 1980 biomass estimate, OY was set at 78,700 mt in the PMP rather than at a higher level closer to ABC. The North Pacific Fishery Management Council recommended a Pacific cod OY of 88,000 mt in April 1980 (SEE MINUTES, NPFMC, April 1980, p. 20). However, in order to establish conformity between the PMP and the FMP and to assure that there is no disruption in the management regime of the Bering Sea Pacific cod fishery, the OY is amended and set at 78,700 mt.

E. Reserve

In order to prevent the Pacific cod OY from being exceeded without preventing unexpected domestic fishery development, 5 percent of the OY, or 3,935 mt, will be held in reserve for allocation later in the year on the basis of domestic need.

F. Domestic Annual Harvest (DAH), Domestic Annual Processing Capacity (DAP)

DAH is the sum of DAP, Domestic Non-Processed Harvest (DNP), and Joint Venture Processed Harvest (JVP). DNP and JVP are not being altered in this amendment.

However, based on information which the NPFMC received at the December 1980 meeting, DAP will increase substantially (SEE, Minutes, NPFMC Scientific and Statistical Committee, December 1980, p. 6 and Letter, November 25, 1980 from D. L. Alverson, Natural Resources Consultants, to Chairman Clem Tillion, NPFMC). It was indicated that domestic catch levels of Pacific cod could approach 70,000 to 90,000 mt in the Gulf of Alaska and the Bering Sea/Aleutian Region in 1981. DAP is therefore increased from 7,000 mt to 26,000 mt. Therefore, DAH is increased from 24,265 mt to 43,265 mt.

G. Summary Table

Bering Sea/Aleutians Groundfish FMP

Pacific Cod (Gadus morhua macrocephalus) (in 1,000's mt)

| <u>MSY</u> | <u>EY</u> | <u>ABC</u> | <u>OY</u> | <u>RESERVE</u> | <u>DAH</u> | <u>DNP</u> ^{1/} | <u>DAP</u> | <u>JVP</u> ^{1/} | <u>TALFF</u> ^{1/} |
|------------|-----------|------------|-----------|----------------|------------|--------------------------|------------|--------------------------|----------------------------|
| 55 | 160 | 160 | 78.7 | 3.935 | 43.265 | 0.2 | 26 | 17.065 | 31.5 |

^{1/} These figures remain the same as in the FMP.

DRAFT AMENDMENT PACKAGE NUMBER 3
TO THE
BERING SEA/ALEUTIAN ISLANDS GROUND FISH
FISHERY MANAGEMENT PLAN

February 25, 1981

North Pacific Fishery Management Council
P.O. Box 3136 DT
Anchorage, Alaska 99510

Proposals for Controlling the Incidental Catch of Prohibited
Species in the Bering Sea/Aleutians Groundfish Fishery

INTRODUCTION

Para 01 Prohibited species are defined in Annex VI of the Bering Sea/Aleutians groundfish Fishery Management Plan (FMP dated November 19, 1979) and its Amendment Package #1 (October 7, 1980). Current regulations on their take are defined in the draft FMP for the domestic fishery in Section 14.3.1.2 and for the foreign fishery in Section 14.3.2.2. The Amendment Package #1 contains a Plan Development Team (PDT) discussion paper on "Controlling the incidental catch of prohibited species" which considered 6 options for resolving the problems. A subsequent report by a working group on prohibited species formed by the SSC entitled "Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea" further elaborated on the topic and some studies on resolution of the problem. This Amendment Package #3 draws upon the contents of both these reports and the public discussions of the problems and its resolution for controlling the incidental catch of selected species. These selected prohibited species are salmon, Pacific halibut, king crab, and Tanner crab.

GUIDELINES

Para 02 Two sets of guidelines are adopted to determine procedures for controlling the incidental catch of prohibited species:

1. that procedures chosen should provide incentives and opportunities for fishermen to modify their gear, fishing techniques, and whatever is appropriate to reduce incidental catch of prohibited species so that long-term solutions would result from the actions; and
2. that procedures chosen should be potentially applicable to both foreign and domestic fishermen.

PREFERRED ORDER OF PROPOSED PROCEDURES

Para 03 In order of preference, some of the more viable procedures for reducing incidental catches of prohibited species are to:

1. set allowable incidental catches (AIC) coupled with imposition of incidental catch fees;
2. set AIC's alone;
3. impose incidental catch fees alone;
4. impose gear restrictions;
5. enact time/area closures;
6. reduce OY of groundfish;

7. impose gear restrictions coupled with reduction in groundfish OY; and
8. set fishery specific incidence rates as cut-off rates for closing the groundfish fishery.

APPLICATION TO FOREIGN AND DOMESTIC FISHERY

Para 04 For any of the 8 procedures or combinations of the procedures above, there are two viable options for their application to the foreign and domestic fisheries. These two options are:

1. applies to both foreign and domestic fishery; and
2. applies to foreign fishery only.

DETAILS ON PROPOSED PROCEDURES

Preference 1: Set AIC Plus Fees

Para 05 The target is to reduce incidental catches of each prohibited species by 75% in 5 years. The procedure to do so is to reduce incidental catches by 15% per year from the 1977-79 average catch levels till the target is achieved.

Para 06 The target level of reduction is based on a report by Wespestad, Hoag, and Narita (1981). The procedure would result in the following AIC's:

| Year | <u>Metric Tons</u> | | <u>Number of Individuals</u> | |
|---------|--------------------|--------|------------------------------|-------------|
| | Halibut | Salmon | King Crab | Tanner Crab |
| 1977-79 | | | | |
| Average | 2,951 | 66,698 | 961,783 | 17,646,847 |
| Year 1 | 2,508 | 56,693 | 817,516 | 14,999,820 |
| Year 2 | 2,065 | 46,688 | 673,249 | 12,352,793 |
| Year 3 | 1,622 | 36,683 | 528,982 | 9,705,766 |
| Year 4 | 1,179 | 26,679 | 384,715 | 7,058,739 |
| Year 5 | 736 | 16,674 | 240,448 | 4,411,712 |

Note: The AIC's may be expressed in weight or numbers

Para 07 The incidental catch fees to be charged for prohibited species caught will be calculated each year using the procedures described in a report by Marasco and Terry (1981). Following these procedures, the 1979 fees per individual would have been: halibut (\$12.66), chinook salmon (\$17.75), chum salmon (\$2.16), red king crab (\$5.16), blue king crab (\$6.02), C. bairdi Tanner crab (\$0.66), and C. opilio Tanner crab (\$0.095). The fees are charged to compensate the U.S. for incidental kill of species that would otherwise be recruited to the domestic fishery had they not been caught.

Para. 08 Incidental catches will be estimated by the U.S. Observer program and other reported statistics that are reliable. Since the mortality factor of trawl-caught salmon, and halibut are 100% or practically close to it, their catches are assessed 100%. Longline-caught and released halibut have a mortality factor close to 25% and will, therefore, be assessed 25% of catches. Salmon and crabs are normally not a significant component of longline catches and AIC's for these species will therefore not be applied to longliners. Trawl-caught crab catches will also be assessed 100%.

Para 09 The AIC's and incidental catch fees will set limits to incidental catch problems while providing incentives and opportunities for fishermen to modify their gear, fishing techniques, and whatever is appropriate to alleviate the problem. The procedure will work best with adequate observer coverage to ensure reasonable accuracy in estimating prohibited species catches. It is also emphasized that it is the intent that prohibited species catches not be retained by fishermen for use or sale to discourage covert targeting on the species. An option, however, is to allow retention of these prohibited species catches.

Preference 2: Set AIC Alone

Para 10 Same as in Preference 1, paragraphs 5, 6, 8, and 9.

Preference 3: Set Incidental Catch Fees Alone

Para 11 Same as in Preference 1, paragraphs 7 and 9.

Preference 4: Imposition of Gear Restrictions

Para 12 All trawling will be restricted to pelagic gear except that on-bottom gear will be allowed for the fisheries on yellowfin soles and turbot.

Para 13 Pelagic trawl gear should not be fished with the foot-rope in contact with the sea bottom more than 10% of the time in any tow. Specific make-up and descriptions of such pelagic trawls will have to be defined at a later time.

Para 14 By allowing on-bottom trawling for the flatfish fishery and restricting all other trawl fisheries to pelagic gear, a substantial savings in prohibited species catches may be achieved without severely impacting on groundfish catches. Based mainly on current fishing practices of Soviet vessels, Weststad et al (1981) predicted potential savings in halibut (74%), Tanner crab (68%), king crab (61%), and salmon (82%). It is noted, however, that depending on the magnitude of the fishery for yellowfin sole and turbot, the incidental catch of halibut may continue to be high because of the high degree of co-occurrence between the species.

Preference 5: Time/Area Closures

- Para 15 A November through February (4-month) closure of Bering Sea groundfish management Areas I and II to trawl fisheries is considered to be an viable interim procedure to protect prohibited species, especially salmon.
- Para 16 This time/area closure option is based on a Bering Sea time/area closure model study to define potential areas for reducing prohibited species catches as reported by Low, Gibbs, and Nariita (1981). Given the assumptions on how fishing effort will re-distribute itself under various closure options, it is shown that such a 4-month closure of Areas I and II may result in potential savings of salmon (55%), Tanner crab (8-9%), and king crab (2-6%). There may be some loss in groundfish catches (1-2%) and a potential increased catch of halibut (1-5%). Although savings salmon are substantial, the potential increase of halibut catches is not in conformance with an FMP objective:

"minimize the impact of groundfish fisheries on prohibited species and continue to rebuild the Pacific halibut resource."

- Para 17 Further analyses of other time/area closures will be evaluated to define if another closure will be superior in protecting all prohibited species.

Preference 6: Decrease OY of Groundfish Species

- Para 18 A direct method of reducing the catch of prohibited species is to decrease the OY of groundfish. Evidence suggests that the incidental catch varies with target species; hence, reducing the OY of certain species, rather than all species, might effectively reduce the incidental catch of prohibited species and have less impact on the groundfish fishery. The incidence of halibut is highest when flounder and Pacific cod are targets.
- Para 19 A major advantage of this procedure is its simplicity. However, reduction in OY does not directly address the incidental catch problem and will leave a substantial portion of the total OY unharvested.

Preference 7: Gear Restrictions plus reduction in groundfish catch

- Para 20 The catch of all flounder species should be reduced by 50% so that halibut catches will be reduced.
- Para 21 On-bottom trawl gear will be permitted in areas defined as yellowfin sole and/or turbot grounds while trawling in all other areas will be restricted to pelagic trawls. Yellowfin sole grounds include the area of Bristol Bay shallower than 100 meters. Turbot grounds include the edge of the continental shelf deeper than 300 meters. Longline gear will be allowed in all areas.

Para 22 From the report by Weststad, Hoag, and Narita (1981) where the above combination procedure is evaluated, the incidental catch of prohibited species could be reduced by about 80% while groundfish catch would only be reduced by about 7%.

Preference 8: Fishery Specific Incidence Rates for Prohibited Species

Para 23 An acceptable maximum incidence rate will be determined in advance of the fishing season by the Council. Each fishery will be monitored by the U.S. Observer program to determine the incidence rate of each prohibited species. If the observed rate for any fishery element exceeds the pre-determined maximum rate, the Regional Director will immediately close that statistical area to all vessels of the fishery element for 30 days.

Para 24 The maximum acceptable incidence rate for each prohibited species should be standardized for all nations in order to encourage the use of gear and fishing techniques that result in lower incidental catch rates. The fishery elements are defined as vessel class/statistical area/month categories as follows:

| <u>Vessel Classes</u> | <u>Statistical Areas</u> |
|-----------------------|--------------------------|
| Motherships | Area I |
| Large Trawlers | Area II |
| Small Trawlers | Area IV |
| Longliners | |

Para 25 The maximum acceptable incidence rate for each prohibited species may be set as the average of observed incidence rates for the last 3 years when estimates are more reliable than in earlier years and for the reason that these rates should reflect current situations.

REFERENCES CITED

- Low, L., B. Gibbs, and R. Narita. 1981. Bering Sea time/area closure model. In: "Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea" by the SSC working group on prohibited species.
- Marasco, R., and J. Terry. 1981. Incidental catch fees: a rational approach to the problem of the incidental catch of prohibited species. In: "Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea" by the SSC working group on prohibited species.
- Wespestad, V., S. Hoag, and R. Narita. 1981. Methods of reducing the incidental catch of prohibited species in the Bering Sea groundfish fishery through gear modifications. In: "Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea" by the SSC working group on prohibited species.

NORTH PACIFIC BERING SEA
FOREIGN CHINOOK HALIBUT FISHERY
IMPACT ON WESTERN ALASKA STOCKS

FOREIGN

| Year | Total Catch | | Known Interceptions | Western Alaska Inshore Total | | | INSHORE | | Bristol Bay |
|------|-------------|-----|---------------------|------------------------------|-----------|-------|---------|-----|-------------|
| | 1/2 | 2/3 | | Western Alaska Inshore Total | Kuskokwim | Yukon | | | |
| 1965 | 278 | | 106 | 308 | 55 | 135 | | 118 | |
| 1966 | 320 | | 112 | 266 | 80 | 105 | | 81 | |
| 1967 | 238 | | 70 | 357 | 91 | 145 | | 121 | |
| 1968 | 450 | | 226 | 308 | 78 | 119 | | 111 | |
| 1969 | 637 | | 435 | 347 | 109 | 105 | | 133 | |
| 1970 | 538 | | 345 | 376 | 136 | 93 | | 147 | |
| 1971 | 340 | | 144 | 345 | 90 | 127 | | 128 | |
| 1972 | 364 | | 170 | 286 | 100 | 111 | | 75 | |
| 1973 | 281 | | 47 | 243 | 93 | 99 | | 51 | |
| 1974 | 547 | | 287 | 232 | 61 | 115 | | 56 | |
| 1975 | 297 | | 109 | 199 | 79 | 91 | | 39 | |
| 1976 | 484 | | 168 | 317 | 110 | 103 | | 104 | |
| 1977 | 313 | | 108 | 371 | 117 | 115 | | 139 | |
| 1978 | 374 | | 70 | 430 | 102 | 127 | | 201 | |
| 1979 | 427 | | 165 | 483 | 110 | 160 | | 213 | |
| 1980 | 994 | | 488 | 378 | 88 | 183 | | 107 | |

AVERAGE

| | | | |
|-------|-----|----------|-----|
| 65-70 | 410 | 199(.38) | 327 |
| 70-75 | 366 | 151(.37) | 261 |
| 75-80 | 518 | 190(.32) | 396 |

1/ Landbased, mothership, Gulf and Bering Sea travel.

Trawl Fishery catches prior to 1977 are not available.

2/ Deadloss due to dragout not included

3/ Preliminary trawl catch estimate 100 thousand - Bering Sea Incidental catch

Minority Report on the Advisory Panel Meeting of February 25, 1981

We are filing this minority report because we strongly oppose and are extremely concerned about the recommendation of the Advisory Panel to completely close Area A in the Bering Sea to any domestic trawling, except trawling for bait by crab vessels.

This action, if adopted by the Council, will inhibit the U. S. groundfish fishery in the Bering Sea--a fishery which is now in its embryonic stages. This is the fishery which in the future is supposed to restore the balance of trade in favor of the United States, and return America to prominence as a supplier of fish and fish products. This is the fishery which promises jobs to thousands of Alaskans and the flow of millions of dollars to Alaskan communities and the economy of the State. If Area A is shut down to domestic trawling then these visions and dreams may be shattered.

When the Council carefully examines the Advisory Panel's action, it will find there is no scientific information to support the Advisory Panel's claim that the closure is a conservation measure; a measure which is necessary because the domestic fishery, which has just been conceived, threatens the king crab, tanner crab and halibut resources of this area. The report by the National Marine Fisheries Service (NMFS) on incidental catches by domestic vessels participating in the U. S. - U. S. S. R. joint venture, which is the only institutional information available on the domestic groundfish fishery in Area A, states that the U. S. incidental catch of king crab and tanner crab is "insignificant." The incidence of halibut is described in the report as being "comparable to that observed on Japanese small trawlers during the period January through May of 1978...." There is no mention in the NMFS report, nor has there ever been any data presented to the Advisory Panel, that U. S. catches in Area A are a conservation threat to fishery resources. It is ludicrous to draw comparisons between the small domestic effort on groundfish which is distributed throughout Area A and the large concentration of foreign vessels which once fished there. In addition, those who have been participating in the Area A groundfish fishery are long-time fishermen. They are aware that the health of the fisheries are contingent on the conservation of all resources, and they are genuinely concerned about the effects of a multi-species fishery on the resources of established fisheries. As proof of their concern, they have openly provided data on their activities to the scientists and the fishing community.

If there were information which indicated that U. S. groundfish vessels were harming the fishery resources of Area A, we are certain that the Scientific and Statistical Committee (SSC) would be pressing the Council to close the area. We would be remiss if we did not point out that the same proposal and supporting documentation on Area A catches which was given to the Advisory Panel was also presented to the SSC, and the SSC did not feel the closure was worthy of approval.

The service of process on the defendant is hereby acknowledged and the defendant is deemed to have received the summons and complaint and to have waived the right to be served in any other manner.

1. The defendant is hereby notified that the plaintiff has filed a lawsuit against the defendant for breach of contract. The plaintiff claims that the defendant failed to perform its obligations under the contract. The plaintiff seeks damages and costs of suit.

2. The defendant is hereby notified that the plaintiff has filed a lawsuit against the defendant for breach of contract. The plaintiff claims that the defendant failed to perform its obligations under the contract. The plaintiff seeks damages and costs of suit.

3. The defendant is hereby notified that the plaintiff has filed a lawsuit against the defendant for breach of contract. The plaintiff claims that the defendant failed to perform its obligations under the contract. The plaintiff seeks damages and costs of suit.

According to domestic fishermen who testified at the Advisory Panel meeting, Area A appears to be a very productive fishing ground. In fact, the most productive fishing in the yellowfin sole fishery took place there. These fishermen also stated that this area of the Bering Sea is readily accessible to the small vessels which are the backbone of the Alaskan fishing industry. It is likely that financial success in Area A will give the domestic fishery the infusion of capital needed to stimulate the development of the entire bottomfish industry off Alaska. And it is important that all vessels, large and small, be given the opportunity to participate in this extremely valuable fishery.

Thus far, the domestic trawl fishery in Area A has been described as "experimental." By proposing that this fishery be closed down, the Advisory Panel is recommending that this experiment be declared a failure after only one year. A year in which the fishermen who participated in this fishery see a great possibility of success. A year in which very little data has been collected and analyzed on domestic incidental catches. The term "experiment" connotes "trial and error"--an activity of successes and failures, but most importantly, a time of learning. Domestic fishermen are trying, discarding and refining old and new methods of harvesting; they are discovering and exploring productive and non-productive grounds. Those in this fishery should be encouraged in their efforts and commended for their vision and creativity. They should be given a reasonable amount of time to determine whether an economically viable groundfish fishery in Area A is possible. One year of experimentation is not enough to ascertain success or failure.

What we perceive in the Advisory Panel's recommendation is the protection of the interests of a few at the expense of an entire fishing industry--harvesters, processors and supporting activities. Some of us who filed this minority report represent or own vessels which fish for crab in the Bering Sea. We wish to bring to the Council's attention that we did not ask for the exception for bait trawling in Area A that is carved out in the Advisory Panel's recommendation.

All of us believe, as did Congress, that it is in the best interests of the Nation to promote and encourage the development of the bottomfish industry off Alaska. If the Advisory Panel's recommendation is followed, the growth of the infant bottomfish industry may be severely inhibited.

Richard J. Bennett Alvin R. Church
Konrad S. E.
Don Rawlins

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M E M O R A N D U M

TO: Council and AP members
FROM: SSC
DATE: February 25, 1981

The SSC is going to recommend that this package go out immediately for public review.

DRAFT AMENDMENT PACKAGE NUMBER 3
TO THE
BERING SEA/ALEUTIAN ISLANDS GROUND FISH
FISHERY MANAGEMENT PLAN

February 25, 1981

North Pacific Fishery Management Council
P.O. Box 3136 DT
Anchorage, Alaska 99510

Proposals for Controlling the Incidental Catch of Prohibited
Species in the Bering Sea/Aleutians Groundfish Fishery

INTRODUCTION

Para 01 Prohibited species are defined in Annex VI of the Bering Sea/Aleutians groundfish Fishery Management Plan (FMP dated November 19, 1979) and its Amendment Package #1 (October 7, 1980). Current regulations on their take are defined in the draft FMP for the domestic fishery in Section 14.3.1.2 and for the foreign fishery in Section 14.3.2.2. The Amendment Package #1 contains a Plan Development Team (PDT) discussion paper on "Controlling the incidental catch of prohibited species" which considered 6 options for resolving the problems. A subsequent report by a working group on prohibited species formed by the SSC entitled "Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea" further elaborated the topic and studies resolution of the problem. This Amendment Package #3 draws upon the contents of both these reports and the public discussions of the problems and its resolution for controlling the incidental catch of selected species. These selected prohibited species are salmon, Pacific halibut, king crab, and Tanner crab.

GUIDELINES

Para 02 Two sets of guidelines are adopted to determine procedures for controlling the incidental catch of prohibited species:

1. that procedures chosen should provide incentives and opportunities for fishermen to modify their gear, fishing techniques, and whatever is appropriate to reduce incidental catch of prohibited species so that long-term solutions would result from the actions; and
2. that procedures chosen should be potentially applicable to both foreign and domestic fishermen.

PREFERRED ORDER OF PROPOSED PROCEDURES

Para 03 In order of preference, some of the more viable procedures for reducing incidental catches of prohibited species are to:

1. set allowable incidental catches (AIC) coupled with imposition of incidental catch fees;
2. set AIC's alone;
3. impose incidental catch fees alone;
4. impose gear restrictions;
5. enact time/area closures;
6. reduce OY of groundfish;

7. impose gear restrictions coupled with reduction in groundfish OY; and
8. set fishery specific incidence rates as cut-off rates for closing the groundfish fishery.

APPLICATION TO FOREIGN AND DOMESTIC FISHERY

Para 04 For any of the 8 procedures or combinations of the procedures above, there are two viable options for their application to the foreign and domestic fisheries. These two options are:

1. applies to both foreign and domestic fishery; and
2. applies to foreign fishery only.

DETAILS ON PROPOSED PROCEDURES

Preference 1: Set AIC Plus Fees

Para 05 The target is to reduce incidental catches of each prohibited species by 75% in 5 years. The procedure to do so is to reduce incidental catches by 15% per year from the 1977-79 average catch levels till the target is achieved.

Para 06 The target level of reduction is based on a report by Wespestad, Hoag, and Narita (1981). The procedure would result in the following AIC's:

| Year | <u>Metric Tons</u> | | <u>Number of Individuals</u> | |
|--------------------|--------------------|--------|------------------------------|-------------|
| | Halibut | Salmon | King Crab | Tanner Crab |
| 1977-79 Average | 2,951 | 66,698 | 961,783 | 17,646,847 |
| Year 1 | 2,508 | 56,693 | 817,516 | 14,999,820 |
| Year 2 | 2,065 | 46,688 | 673,249 | 12,352,793 |
| Year 3 | 1,622 | 36,683 | 528,982 | 9,705,766 |
| Year 4 | 1,179 | 26,679 | 384,715 | 7,058,739 |
| Year 5 | 736 | 16,674 | 240,448 | 4,411,712 |

Note: The AIC's may be expressed in weight or numbers

Para 07 The incidental catch fees to be charged for prohibited species caught will be calculated each year using the procedures described in a report by Marasco and Terry (1981). Following these procedures, the 1979 fees per individual would have been: halibut (\$12.66), chinook salmon (\$17.75), chum salmon (\$2.16), red king crab (\$5.16), blue king crab (\$6.02), *C. bairdi* Tanner crab (\$0.66), and *C. opilio* Tanner crab (\$0.095). The fees are charged to compensate the U.S. for incidental kill of species that would otherwise be recruited to the domestic fishery had they not been caught.

Para 08 Incidental catches will be estimated by the U.S. Observer program and other reported statistics that are reliable. Since the mortality factor of trawl-caught salmon, and halibut are 100% or practically close to it, their catches are assessed 100%. Longline-caught and released halibut have a mortality factor close to 25% and will, therefore, be assessed 25% of catches. Salmon and crabs are normally not a significant component of longline catches and AIC's for these species will therefore not be applied to longliners. Trawl-caught crab catches will also be assessed 100%.

Para 09 The AIC's and incidental catch fees will set limits to incidental catch problems while providing incentives and opportunities for fishermen to modify their gear, fishing techniques, and whatever is appropriate to alleviate the problem. The procedure will work best with adequate observer coverage to ensure reasonable accuracy in estimating prohibited species catches. It is also emphasized that it is the intent that prohibited species catches not be retained by fishermen for use or sale to discourage covert targeting on the species. An option, however, is to allow retention of these prohibited species catches.

Preference 2: Set AIC Alone

Para 10 Same as in Preference 1, paragraphs 5, 6, 8, and 9.

Preference 3: Set Incidental Catch Fees Alone

Para 11 Same as in Preference 1, paragraphs 7 and 9.

Preference 4: Imposition of Gear Restrictions

Para 12 All trawling will be restricted to pelagic gear except that on-bottom gear will be allowed for the fisheries on yellowfin soles and turbot.

Para 13 Pelagic trawl gear should not be fished with the foot-rope in contact with the sea bottom more than 10% of the time in any tow. Specific make-up and descriptions of such pelagic trawls will have to be defined at a later time.

Para 14 By allowing on-bottom trawling for the flatfish fishery and restricting all other trawl fisheries to pelagic gear, a substantial savings in prohibited species catches may be achieved without severely impacting on groundfish catches. Based mainly on current fishing practices of Soviet vessels, Wespestad et al (1981) predicted potential savings in halibut (74%), Tanner crab (68%), king crab (61%), and salmon (82%). It is noted, however, that depending on the magnitude of the fishery for yellowfin sole and turbot, the incidental catch of halibut may continue to be high because of the high degree of co-occurrence between the species.

Preference 5: Time/Area Closures

- Para 15 A November through February (4-month) closure of Bering Sea groundfish management Areas I and II to trawl fisheries is considered to be an viable interim procedure to protect prohibited species, especially salmon.
- Para 16 This time/area closure option is based on a Bering Sea time/area closure model study to define potential areas for reducing prohibited species catches as reported by Low, Gibbs, and Narita (1981). Given the assumptions on how fishing effort will re-distribute itself under various closure options, it is shown that such a 4-month closure of Areas I and II may result in potential savings of salmon (55%), Tanner crab (8-9%), and king crab (2-6%). There may be some loss in groundfish catches (1-2%) and a potential increased catch of halibut (1-5%). Although savings salmon are substantial, the potential increase of halibut catches is not in conformance with an FMP objective:
- "minimize the impact of groundfish fisheries on prohibited species and continue to rebuild the Pacific halibut resource."
- Para 17 Further analyses of other time/area closures will be evaluated to define if another closure will be superior in protecting all prohibited species.

Preference 6: Decrease OY of Groundfish Species

- Para 18 A direct method of reducing the catch of prohibited species is to decrease the OY of groundfish. Evidence suggests that the incidental catch varies with target species; hence, reducing the OY of certain species, rather than all species, might effectively reduce the incidental catch of prohibited species and have less impact on the groundfish fishery. The incidence of halibut is highest when flounder and Pacific cod are targets.
- Para 19 A major advantage of this procedure is its simplicity. However, reduction in OY does not directly address the incidental catch problem and will leave a substantial portion of the total OY unharvested.

Preference 7: Gear Restrictions plus reduction in groundfish catch

- Para 20 The catch of all flounder species should be reduced by 50% so that halibut catches will be reduced.
- Para 21 On-bottom trawl gear will be permitted in areas defined as yellowfin sole and/or turbot grounds while trawling in all other areas will be restricted to pelagic trawls. Yellowfin sole grounds include the area of Bristol Bay shallower than 100 meters. Turbot grounds include the edge of the continental shelf deeper than 300 meters. Longline gear will be allowed in all areas.

Para 22 From the report by Wespestad, Hoag, and Narita (1981) where the above combination procedure is evaluated, the incidental catch of prohibited species could be reduced by about 80% while groundfish catch would only be reduced by about 7%.

Preference 8: Fishery Specific Incidence Rates for Prohibited Species

Para 23 An acceptable maximum incidence rate will be determined in advance of the fishing season by the Council. Each fishery will be monitored by the U.S. Observer program to determine the incidence rate of each prohibited species. If the observed rate for any fishery element exceeds the pre-determined maximum rate, the Regional Director will immediately close that statistical area to all vessels of the fishery element for 30 days.

Para 24 The maximum acceptable incidence rate for each prohibited species should be standardized for all nations in order to encourage the use of gear and fishing techniques that result in lower incidental catch rates. The fishery elements are defined as vessel class/statistical area/month categories as follows:

| <u>Vessel Classes</u> | <u>Statistical Areas</u> |
|-----------------------|--------------------------|
| Motherships | Area I |
| Large Trawlers | Area II |
| Small Trawlers | Area IV |
| Longliners | |

Para 25 The maximum acceptable incidence rate for each prohibited species may be set as the average of observed incidence rates for the last 3 years when estimates are more reliable than in earlier years and for the reason that these rates should reflect current situations.

REFERENCES CITED

- Low, L., B. Gibbs, and R. Narita. 1981. Bering Sea time/area closure model. In: "Reducing the incidental catch of prohibited species by foreign groundfish fisheries in the Bering Sea" by the SSC working group on prohibited species.
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